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GGTTTGGTAG CTATCCACTT GATGGTCAAA TTGAAAATGG GGCAAGGCCA TCAGTAAATT	4860
CACACCCTGC TCAAAAAAGG TCAGAGGGAA AAAGAGGTGC CGACCTTGGT TTTGGAAAAA	4920
GAGGTCTGGA ACCAGCCCTT CCTCCGTTAG TCCGTGCAAG AAAGTCAAAA GTTCTTGGCT	4980
GGCATCATCA AAGGCTTCCC AAGAAAGAGA CTCCTCATAA ATCTTGCCAA TCATATACGA	5040
CTTCTCTGCT TCGACAATCC TTAaaaaaaag TGGAATATCC CGAATGACAT AGTATTTTTG	5100
GCTATTGATT TGGCCGATTC TCAGAGTCCA CAAGATATGA TTGGTTCCCTG CTTCCACCTG	5160
ACCCACAGCT GATAACTCAT AGGCGCATTC TGATTTTGGG GATAAAATTC GATCCAAAAA	5220
CTTGCCACCC AAGGTCACCT TGGTTTCAAC AGCCTCTTTT TCTTCATGAC CTTCTTCCAG	5280
ACTCCACAAG ATTTCTGAC CACGCTCATC ATTTTTCAGA AAATGCTCTA GCGCTGCCAA	5340
ATGCACACAG TAGCCCCTCT TTTGAAAAAA ATCACAGGCA CAAAAACCA AATCATCCTC	5400
TAAACTATAG CGCAGTTCTT CTTCTGCAAC GCGAGCGTAG AGCCGATTGT TCTTTTCCTT	5460
GATGATATCA ACCTTACCAG TTTTATAAAG GGCAACACCT TCGATACGAA TTTTCCCCGG	5520
AATCAATTTA GCCATATTTT CACCTTTACC TTATCTTTTT ATTATACCAT ATTTTCGCCT	5580
ATGAAAATAG CTTCTAGGA AGACTTTTCT CCTAGAAGGC TGGATTTTTA ACGTTTGGCA	5640
AAAGTAGCCA CAATCCGCTG ACAGACTTCT TGCAACAGAG ATTTGGGCAT AGCTATATTG	5700
ATGCGGGCAT GGAGACTTCC TTCCTCTCCA AAATCCAAAC CACGGTTGAG GATAACCTTG	5760
GCTTCATTTT TCAACAACTC TTGCAATGTT TCATCAGTCA GGTGATAAGC TGAAAAGTCA	5820
AGCCAAATCA AGTAGGTACC TTGCGGTTTC ATGACCTTGA TTTTAGTCTC TTTTCCAAAT	5880
AGATCCATCA CATAATTGAT GTGGTCTTCA AAGACTTGCT TGAGTTCCCTC TAGCCAATCT	5940
TTACCGTATC GATAGGCAGC TTCTGTGCGC AAATAACCCA AGCCTGAAAT TTCATGCTGA	6000
TTATTGGCCA ACAGGCGTTT CTGGAAAGCC AGTCTCAACT TAGGATTTTC AATGACTGCA	6060
TAGGAATTTT TTGTTCCAGC AATATTAAAT GTTTTAGTGG CACTGCTCAA GACGATAGCA	6120
AAATTTTTGA AGGCAGGATT GATGGTATTG AAAGACTGGT GTTTGTGACC AAAGAGGGTC	6180
AAATCTTGGT GAATCTCATC CGAAACTAAC AAAACACCGT GTTTTGGCA GAGTTGGCCA	6240
ATCTTCTCCA ACACTTCTTT TTCCCAAACA CGTCCACCAG GATTGTGAGG GTTGCAAAGA	6300
ACATAGAGTT TAACCTCCTC TTCCACCAAA TCCTTTTCAA GTTGGTCAAA GTCAATCTCA	6360
AACAGACTAT CCTTTTCCAC TAAGGAATTA GTAATCAATC TACGATTATT CAACTTGACA	6420
CTGCGAGCAA AGGGTGGGTA GACAGGCGTG TTAATTAAAA CCGCCTCGCC TTCTTTTGTA	6480
AAGGTTTGAA TAGCTGTTGA GATGGCTGGT ACCACACCCT CGATAAAGAC AAGAGCCTCT	6540

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TTGTCAAAGT	TGTAACCGTA	TTGTGTAGCT	TCCTACTTTT	GAACCTCCTT	AATTAAGTCT	6600
TCACTGGCAT	AGGTATAACC	ATAAACCAGT	TGGTCTGCGT	AAGTTTGAC	GGCTTGGCGG	6660
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GTTTCTGTTT	CTTTCCATTT	ATAGGTATGG	TGCCCTAAAC	GGTTGGGCAG	GCTTGTAATA	6780
TCATATTTTC	CCATCTTTGT	CTTATCCTTC	TATGGCTTGG	CGCAAATCTG	CAATCAAATC	6840
TCTAGCATCC	TCAATCCCAA	TAGACAAACG	CAAGAGGTCA	TCTGTCAAAC	CATAAGAATG	6900
GCGTACCTCT	GCTGGAATAT	CAGCATGAGT	TTGAGTCGTT	GGATAAGTAA	TAAGACTTTC	6960
CACTCCACCC	AAACTTTCCG	CAAAAGAGAA	GACCTTGAGA	CTGTTCAAAA	TATGAGGAAT	7020
GCGTGTTC	TCGGCTACTT	TAAAGGAAAT	CATGCCTCCA	CGACCAGTGT	AGAGAACTTC	7080
CTTAAGTCT	GGAGAATCCT	TCAAAAAGGC	AACCACTTCT	TGGGCGTTAG	CTGTTGAGCG	7140
CTCCATACGA	AGAGACAAGG	TCTTGAGACC	ACGAAGCAAC	TGGTAGCTGT	CAAATGGAGA	7200
CAAGACTGCC	CCTGTTGTAT	TAAGATTGTA	AAAAAGCTTC	TCGTATAGTT	CTAAACTATT	7260
GGTCACAACC	ACTCCAGCCA	AGACATCATT	GTGGCCTGCT	AGATACTTGG	TTGCTGAATG	7320
GAGAACGATA	TCTGCTCCAT	CTTCAATCGG	ACGTTGGTAG	ATAGGGCTAT	AGAAGGTATT	7380
GTCCACCACC	ACTTTGGCAC	CCTTAGCATG	AGCCAATTTT	GCTAGTTTTT	CGATATCAAA	7440
TTCCAACATC	AAGGGATTGG	TTGGGGTTTC	GATATAGAGA	ACATCCACAT	CCTTTTCTAA	7500
CTCGGCAATC	AACTCTTCTT	CTGTATTGGC	ATAGGTAAAA	TGGAAATGAC	CTTCCTGCTC	7560
CACTTGTTTA	AACCAGCGAA	AAGAACCACC	GTAAAGATCA	CGCACTGCCA	AGACCTTACT	7620
TCCTACTGGA	AAGACGCTAA	AGGCCAGTAC	AATAGCTGAC	ATCCCTGAGC	TAGTCGCTAG	7680
GGCATAGTCT	GCTGACTCAA	TAGCCGCCAA	GACTTCCTCA	GCCTTACTAC	GAGTTGGATT	7740
TTTAGTGCGC	GTATAGTCAA	ACCCAGTAGA	TCGACCAAAC	TCTGGATGCT	GATAGGTGCT	7800
TGAAAAATGA	AGTGGTGTCA	CCAAAGCACC	TGTTGCCTCA	TCAGACTTGA	TCCCTGCTTG	7860
TGCTAAAATT	GTGTTAATGT	GTAATTCCTT	GCTCATACAA	TTCTCCAAA	TCTATAGTAA	7920
CTATTGTACC	ACTTATTTTG	TATCCTTCGT	TTTCTTGTTT	TCAAGAGCTA	GTTATAGTTT	7980
CAAACTATAT	AAAAAGGGAG	TTTTTCCTGC	TCCCTTTAAT	AGACTATAAA	ATGGTGAATC	8040
TCAAAAGACA	CCTTCACTCT	ATCATTTGCT	CCTGCACAAA	ACGAGCATAA	CGCTCATGAT	8100
TTTCCAGTAG	TTCTTATGA	GTTCTGAGC	CAGTGATTTT	CCCCTCCTCT	AAGAAGAAAA	8160
TACAATCCAC	ATCTTTTACC	GTTGACAAAC	GATGCGCTAT	AATCACAACC	GTCTTCTCCT	8220
TTAGTACAGA	ATAGAGGCTA	CTGATAATCG	CATACTCAGA	ATCCGCATCA	AGATTAGCAG	8280
TGGCTTCATC	AAATATAAGA	ATTTCAAGCAT	CTTTTAAGTA	GGCTCTAGCT	ATTTGAAGTC	8340

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TTTCATGGAG CGAATCTCAT CACCTAGTGA TACTAAGTCT AGCACTTTCA TCAATTCATC	8460
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TGCATTATTT TGTGAAACCC AAGCGATTTT ACTTCTCCAT TCTTTTAAGT TAAAATCATA	8580
TATACTTGAT TGCTCCATTA GAATATCTCC TGAAAGCGGT TTATAAAACC GCTCTAACAA	8640
ACGCACAATC GTTGATTTTC CTGATCCAGA TGGTCCAACA AAAGCAATTT TTTGCCCCTT	8700
GAAAATTGAA CAAGTAATAT CCTTTAAGAC AGGTGATTT TCATCATAAC CAAAATAGAC	8760
ATGGTTAAAA TTCAACCCTC GTCCTGATAC CGATTTTCCT CCCTCAAATT TTTCTTTAGG	8820
AACTGCAAGC AAGTTCTCCA GTGCAACTGA AGATCCCTTG CTCCTAGAAT AAACAGTTAC	8880
AAAATTAGCT ATATTACTAA TAGGATTAAG TAATTGAAAG AGGTAAATCA AAAACGAAAC	8940
CAAGGTTCCC ACAGATATAT ATCCTGCGCT GACCCGATAA CCCCATAGG TTAGCATCAC	9000
AGCTATAGTC GCAAAGATAA ATAAGAGAGC AAACGGGGTC TCAAAAGAAG TAACCCTATC	9060
TGATTTTCAGT GAATTGTTTT GTACCCTTTC AATACAATTA TCCAAAACAT CCTGTACACT	9120
TTTCTCTGCT TGGTTAGTCT TAATTAATTC ATGTTCTTGA ATCTTTTCAG TCAATTGCCC	9180
TGTTAAATTT CCTCCTGTAA ACGACGACTA TACTTTTCAC TGATATTGGA AAGGGGCAAG	9240
ATAATAAACA TCATACAAGG AAGAGTGATG AATAAAAGTA GAGAAAGATT CCAATCAAGA	9300
CTAAATAAGA CTACAATGGA ACCAAGTACC ATAACATAAC TCAGAATAAT ATTTGGGAAA	9360
GTCGTAATTA AAAACTCAGC AATGACACTC GTGTCATTGA CAATGGCAGA AGTCAACTCC	9420
CCACTTTGGC TCTTATCAAA GAAGGATTTT TCTACATAAA TCAACCCCTC TATCACTTTT	9480
TTCTTGATTT TTGCTATCTT TTTTTCACCC GATTGACTAA ACAGATAGTA ACCAATAGAA	9540
GAAAACAAGG CTGACCAAT AAAAATCAAA AACGATTGAA ATACTTTGGA GCCTATATTT	9600
TCAATAGAAC TCCCATCTAT TAAATCCTTT AAGATAAGGG GAAGCAACAA AGCAAGTAGA	9660
CTAGACAGAA CAAGTAAGAA ACTCCCCATA ATCACCTTAG TATCTACTCT TAATAATTTT	9720
AATTTTCATAA ATACTCCTTA TAATATTTCA ACGGATAAAG TCGGGAATAA CTCAATTTGA	9780
GGATAAAATC TAATAAATCT TCCTATAACA AAACGCATAA CATCTAGGAT TTTATATACC	9840
TGATATTATG CGTTTTTAAG CACAAAGACT TCTTACACAA ACTTATCTAC AATTAGATTT	9900
TATTTGACAT GTTTTGCCAA TTCTTCTTGG GCTTTTTTAT TGGATTCTTC TTTTCTTTT	9960
AACCATTTTT CTCTGGCTTT TGCATATTCG TCTGTTGTGA CAATCTTATC TTGTAATTTG	10020
AGGTATTTAT ATGATTCAAC CCCTTTTGTA CCGGTAAAC CATAGGCAGC AGCAAATGGT	10080

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ACGGTTCTTC	TCAATGATGG	TGTTCCCCCA	CGCGAAACAC	TTGGAAGAAC	TAAAGAACTA	10140
TCAATCAACC	AAGCTTGAAT	ATCAGCATAT	TTCTCATAAC	GTTTGGCCCG	ATCTTGCTCT	10200
TTATTAGCTT	CTTCCAACAT	TTGAGTATAG	ACATCCAGTC	CAACTGCCTT	AGCCTTGTC	10260
TTGGCCTCAC	CAGGCTCTAG	TCCAAGATTT	TGCAGAAATC	CTCCACTATT	AGTATTAAAA	10320
ATATCGAGAT	AGGTTGACGG	GTCTTGATAA	TCAGGTCCCC	AACCGCCATG	ATATAAATCA	10380
TAATCTTTCT	GAGCAGCTGT	TTGAGCAAAG	TAGCCTGAAC	TGTCAAACCTC	ATCTGATGTT	10440
AATTGCTGAA	TGTCAATCAC	TACATTATCA	GAACCTAAAA	CAGATTCAAT	TGATTGTTTG	10500
ATAGAACTAA	CTCCTTGAT	GCCTACTTTA	TCTGTTACTT	CCACAGTCTT	ATCCAAGTGG	10560
ATTGGAATT	GAACACCCTT	TGCTTCGAGT	TCTTTCTTAG	CTTCCGCAAA	CTTAGCCTTG	10620
GCTTTCTCAG	GATTGTAGTA	AGGGTCTTGA	CCATCCGCAA	AGTTGATACC	TTGCCATTCC	10680
TTACCATAGT	TGACCATCTT	AGAGGCTACA	ACTTCACCAA	AGTCTTTTCC	CTTGATACTG	10740
ACAAAGTTTG	GAGGAACCAC	TAGGTTACGC	AAAATCTTTG	TTGCACCCTC	TTTCCCTTCA	10800
GACTGAGCCC	CATAAGATGT	TCTGTCAAAA	GCAAAATTGA	TAGCCTGACG	GAAGTTTTTA	10860
TTGAGAACTG	CTTCCTGAGT	CGATTTCTTT	TCAATGTCAC	TTGTTTTAGA	ACTATAATTG	10920
TAAGACTTCC	TATCTAGGTT	AAAATTAAAG	AAATATGAAG	TTGAATTTTG	CATACTATAG	10980
ATGATATTGT	TTTTGTATTT	TTCTTTAATC	CCTTCATAGC	TGGAGCTGTT	AGGAAAAAGA	11040
CGAGCCGTAG	TATAAGCACC	AGCTGTAAAA	TTACGTTCCA	GTGATTCCTG	GTCGCTACCA	11100
TCATAGTAGG	TCAATTTTAC	ATCGTCTACA	AAGACATTCT	TAGCATCCCA	GTAATTAGGG	11160
TTTTTCTTAT	ATTCAATAGC	AGATTTTGAG	ACAAGTGCTT	TCATCAAGAA	AGGTCCATTG	11220
TACAAAATAC	TAGATGGATC	CGCCTTCCCA	AAATCATCCC	CTTTTGATTT	CAGGAAATCT	11280
GCATTAACAG	GAAAAAGTAT	CGTTGCAAGT	GTTTTTGAAT	TCCAGTAAAG	TTCTGGTTTA	11340
ACCAAAGTAT	ATTGAACCGT	TTGCTCATCA	AGTGCCTTGA	CACCGACAGT	TGAAAAGTCG	11400
CTTGTTTTAC	CAGTGATATA	GTCATCCAAA	CCAGCAACAG	AGTCCTGCAC	TAGATACAAG	11460
GCTTCTGATT	TTTTATCAGC	TGCATATTGC	AAACCTGTCA	CAAAATCCTG	GGCAGTTACA	11520
GGCGCATATT	CTTCTCCCTC	AGAAGTAAAC	CACTTGGCAT	CCTTACGAAG	TTTGTAGGTA	11580
TAGGTCAAAC	CGTCCTGAGA	AACAGTCCAA	TCCTCTGCTA	ATGATGGAAT	AATATTCCCA	11640
TATTGGTCAT	TTTCTAATAA	CCCGTCTACC	AAATTTGCAA	CAATATCGGA	TGTTGCTGCG	11700
CGGTTTTCTG	CTAGATAGTT	CAAGCTAGAT	GGATCACTTG	AATAAACATA	GTTGTAGGTT	11760
TTTGACGCCG	TGCTAGAATT	TCCACACGCG	CTCAATAAAA	CTCCTGTACC	CAGGACAAGA	11820
CCTGCCAAGG	TTAGATATTT	GCTCTTAGAC	TTTTTCATTT	CCGG		11864

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(2) INFORMATION FOR SEQ ID NO: 62:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 2412 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: double
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 62:

TAAGTCACT AACATAATA TAAGGAGAGA AAATGTCTGC AATAGAACGT ATTACAAAAG	60
CTGCTCACTT AATTGATATG AACGATATTA TCCGTGAAGG GAATCCTACT CTACGCGCGA	120
TTGCTGAGGA AGTCACTTTC CCCCTATCTG ACCAGGAAAT CATCCTAGGC GAAAAGATGA	180
TGCAATTCCT TAAACATTCC CAAGATCCTG TCATGGCTGA AAAAATGGGA CTCCGCGGTG	240
GTGTTGGACT GGCTGCTCCC CAGTTAGATA TCTCAAAACG CATTATCGCT GTTTTGGTAC	300
CTAATATTGT TGAAGAAGGC GAAACTCCAC AGGAAGCCTA CGATTTGGAA GCCATTATGT	360
ACAAATCCAAA AATCGTCTCT CACTCTGTTT AAGATGCTGC TCTTGGCGAA GGAGAAGGTT	420
GCCTGTCTGT TGACCGTAAC GTGCCTGGCT ATGTTGTTCT CCATGCCCCG GTTACTGTTG	480
ACTACTTTGA CAAAGATGGA GAAAAACACC GTATCAAACT CAAAGGCTAC AACTCCATTG	540
TTGTTTACGA TGAAATTGAC CACATTAACG GTATCATGTT TTACGATCGC ATCAATGAAA	600
AAGACCCATT TGCAGTAAA GATGGTTTAC TGATTCTTGA ATAAAGAAAA TCCCGTTGCA	660
AGACGGGGTT TTGTGTTATA ATAGAGGCAT GAAAACAAAT GATATTCTCT ATGGTGTCCA	720
CGCCGTTACC GAAGCCCTCC TTGCAAATAC AGGAAACAAA CTCTACCTCC AAGAAGATCT	780
CCGAGGTAAG AATGTTGAGA AAGTCAAGGA ACTAGCTACA GAAAAGAAGG TGTCATTTC	840
TTGGACATCA AAAAAATCTC TCTCTGAGAT TACTGAAGGT GCTGTTTCATC AAGGTTTGT	900
TCTACGAGTG TCTGAATTTG CCTATAGCGA GCTAGATTAC ATCCTTGCAA AAACACGCCA	960
AGAAGAAAAT CCACTTCTAT TGATTCTAGA TGGTCTAACC GATCCCCATA ATCTGGGTTT	1020
TATCTTGCGA ACAGCCGATG CGACCAATGT TTCAGGTGTC ATCATTCCTA AGCACCCTAC	1080
TGTCGGAGTA ACTCCTGTCT TTGCCAAAAC AGCCACAGGT GCTATTGAAC ACGTCCCAAT	1140
TGCCCCGAGT ACCAACCTCA GTCAAACCTT AGGATAAACT TAAGGATGAA GGTTCCTGGA	1200
CCTTTGGAAC GGATATGAAC GGTACTCCTT GCCACAAGTG GAATACAAAA GGGAAAATCG	1260
CCCTCATCAT TGGAATGAA GGAAAAGGTA TCTCTAGCAA CATCAAAAAA CAGGTGATG	1320
AAATGATTAC CATTCCGATG AATGGACATG TTCAAAGCCT TAATGCCAGT GTTGCTGCGG	1380

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CCATTCTCAT GTACGAAGTT TTCCGAAATA GACTATAAAA AAGTTTCCAG TCATCTGATT	1440
GGAAACTTTT TTATGATTAA CTATGTTCTG TAATGAATTT ATAGGCTTCT TGACCAGCGA	1500
TAGCTCCATC TCCAACCGCT GTTGTTACTT GGCGAAGGTC TTTCAAGCGA ACATCTCCAA	1560
CTGCAAAGAT ACCGTCGACT GCAGTTTTCA TGTGGTTATC TGTCACAATC CATCCTGCCT	1620
GATCTTGGAT ATTCAATTCT TTAACAAAAT CGCTAAGAGG GTCCAAACCA ACATAGATAA	1680
AGACACCACC GAAGGCTTGT TCTGTCACCT GACCTGTTTT CACATTTTCA AATACGACTG	1740
ATTCTACTCG GTTTTCACCC TTGATTTCCC TTAACACAGA ATCCCAGATA AAGCTGATTT	1800
TTTCATTGCG AAAGGCGCGA TCTTGTAATA CCTTTTGGGC ACGAAGTTGG TCACGACGGT	1860
GAACAATGGT AACAGTCTTA GCAAAACGAG TCAAGAAGAG GCCTTCTTCA ACAGCTGAAT	1920
CTCCACCACC AACTACCAAT AAATCTTGGT CACGGAAGAA AGCACCATCA CACACAGCAC	1980
ACTAAGAAAC ACCACGACTG TTCAGTTCTT CTTCTCCAGG CACTCCCAAA GGACGGTGTT	2040
TAGAACCAGT TGCTACGATA ACTGTACGTG TTTTCATATG TTGGTCATCA GTCATCACTT	2100
TCTTAAATC ACCATGGCTT CGACATTTTC AACATAACCA TAAATGTGCT CAACACCAAG	2160
ATTTTCAAGT GGTCAAACA TCTTTTCAGC CAATTCAGGT CCACTAATAT TAGCGTATCC	2220
TGGGTAATTT TCGATATCAG ATGTATTATT CATCTGACCA CCTGGCAGAC CACCTTCAAT	2280
CAAAGCTACT TTTAGATTGC TTCGAGCAGC ATACAAGGCC GCAGTCATCC CTGCAGGTCC	2340
AGCACCGATA ATAATAGTAT CGTACATATA GATTCCTTCT TTCTTGGTGT AACTATCTTT	2400
ATTCTAACTC TG	2412

(2) INFORMATION FOR SEQ ID NO: 63:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 7760 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 63:

CCGATTTGGT GGAATTTTTG TCTCATCATT TAGAAGGTGT TGCAAGAGCA GAGTTTACCT	60
TGGTGCTTCA TACCAAATTG GGAGAAGCCT CTGTTTGGC AAATATTGTA GATGTAAACA	120
AGGATGAATG GATTTTAGGA ACAGTTGCTG GTGCCAATAC CTTATTGGTT ATTTGTCGAG	180
ATCAGCACGT TGCCAAACTC ATGGAAGATC GTTTGCTAGA TTTGATGAAA GATAAGTAAG	240
GTCTTGGGAG TTGCTCTCAA GACTTATTTT TGAAAAGGAG AGACAGAAAA TGGCGATAGA	300
AAAGTTATCA CCCGGCATGC AACAGTATGT GGATATTAAA AAGCAATATC CAGATGCTTT	360

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TTTGCTCTTT CGGATGGGTG ATTTTATGA ATTATTTTAT GAGGATGCGG TCAATGCTGC	420
GCAGATTCTG GAAATTTCTT TAACGAGTCG CAACAAGAAT GCCGACAATC CGATCCCTAT	480
GGCGGGTGTT CCCTATCATT CTGCCCCAACA GTATATCGAT GTCTTGATTG AGCAGGGTTA	540
TAAGGTGGCT ATCGCAGAGC AGATGGAAGA TCCTAAACAA GCAGTTGGGG TTGTTAAACG	600
AGAGGTGTGT CAGGTCATTA CGCCAGGGAC AGTGGTCGAT AGCAGTAAGC CGGACAGTCA	660
GAATAATTTT TTGGTTTCCA TAGACCGCGA AGGCAATCAA TTTGGCCTAG CTTATATGGA	720
TTTGGTGACG GGTGACTTTT ATGTGACAGG TCTTTTGGAT TTCACGCTGG TTTGTGGGGA	780
AATCCGTAAC CTCAAGGCTC GAGAAGTGGT GTTGGGTTAT GACTTGTCTG AGGAAGAAGA	840
ACAAATCCTC AGCCGCCAGA TGAATCTGGT ACTCTCTTAT GAAAAAGAAA GCTTTGAAGA	900
CCTTCATTTA TTGGATTTGC GATTGGCAAC GGTGGAGCAA ACGGCATCTA GTAAGCTGCT	960
CCAGTATGTT CATCGGACTC AGATGAGGGA ATTGAACCAC CTCAAACCTG TTATCCGCTA	1020
CGAAATTAAG GATTTCTTGC AGATGGATTA TCGGACCAAG GCTAGTCTGG ATTTGGTTGA	1080
GAATGCTCGC TCAGGTAAGA AACAAGGCAG TCTTTTCTGG CTTTGGATG AAACCAAAAC	1140
GGCTATGGGG ATGCGTCTCT TCGTTCTTG GATTCATCGC CCCTTGATTG ATAAGGAACG	1200
AATCGTCCAA CGTCAAGAAG TAGTGCAGGT CTTTCTCGAC CATTTCTTTG AGCGTAGTGA	1260
CTTGACAGAC AGTCTCAAGG GTGTTTATGA CATGAGCGC TTGGCTAGTC GTGTTTCTTT	1320
TGGCAAAACC AATCCAAAGG ATCTCTTGCA GTTGGCGACT ACCTTGCTA GTGTGCCACG	1380
GATTCGTGCG ATTTTAGAAG GGATGGAGCA ACCTACTCTA GCCTATCTCA TCGCACAAC	1440
GGATGCAATC CCTGAGTTGG AGAGTTTGAT TAGCGCAGCG ATTGCTCCTG AAGCTCCTCA	1500
TGTGATTACA GATGGGGGAA TTATCCGGAC TGGATTTGAT GAGACTTTAG ACAAGTATCG	1560
TTGCGTTCTC AGAGAAGGGA CTAGCTGGAT TGCTGAGATT GAGGCTAAGG AGCGAGAAAA	1620
CTCTGGTATC AGCAGCTCA AGATTGACTA CAATAAAAAG GATGGCTACT ATTTTCATGT	1680
GACCAATTCG CAACTAGGAA ATGTGCCAGC TCACTTTTTC CGCAAGGCGA CGCTGAAAAA	1740
CTCAGAACGC TTTGGAACCG AAGAATTAGC CCGTATCGAG GGAGATATGC TTGAGGCGCG	1800
TGAGAAGTCA GCCAACCTCG AATACGAAAT ATTTATGCGC ATTCGTGAAG AGGTCCGCAA	1860
GTACATCCAG CGTTTACAAG CTCTAGCCCA AGGAATTGCG ACGGTTGATG TCTTACAGAG	1920
TCTGGCGGTT GTGGCTGAAA CCCAGCATTT GATTCGACCT GAGTTTGGTG ACGATTCA	1980
AATTGATATC CGGAAAGGGC GCCATGCTGT CGTTGAAAAG GTTATGGGGG CTCAGACCTA	2040
TATTCCAAAT ACGATTCAGA TGGCAGAAGA TACCAGTATT CAACTGGTTA CAGGGCCAAA	2100

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CATGAGTGGG AAGTCTACCT ATATGCGTCA GTTAGCCATG ACGGCGGTTA TGGCCCAGCT	2160
GGGTTCCCTAT GTTCCTGCTG AAAGCGCCCA TTTACCGATT TTTGATGCGA TTTTACCCG	2220
TATCGGAGCA GCAGATGACT TGGTTTCGGG TCAGTCAACC TTTATGGTGG AGATGATGGA	2280
GGCCAATAAT GCCATTTTCG ATGCGACCAA GAACTCTCTC ATTCTCTTTG ATGAATTGGG	2340
ACGTGGAAC T GCAACTTATG ACGGGATGGC TCTTGCTCAG TCCATCATCG AATATATCCA	2400
TGAGCACATC GGAGCTAAGA CCCTCTTTGC GACCCACTAC CATGAGTTGA CTAGTCTGGA	2460
GTCTAGTTTA CAACACTTGG TCAATGTCCA CGTGGCAACT TTGGAGCAGG ATGGGCAGGT	2520
CACCTTCCTT CACAAGATTG AACCGGGACC AGCTGATAAA TCTACGGTAT CCATGTTGCC	2580
AAGATTGCTG GCTTGCCAGC AGACCTTTTA GCAAGGGCGG ATAAGATTTT GACTCAGCTA	2640
GAGAATCAAG GAACAGAGAG TCCTCCTCCC ATGAGACAAA CTAGTGCTGT CACTGAACAG	2700
ATTTCACTCT TTGATAGGGC AGAAGAGCAT CCTATCCTAG CAGAATTAGC TAAACTGGAT	2760
GTGTATAATA TGACACCTAT GCAGGTTATG AATGTCTTAG TAGAGTTAAA ACAGAAACTA	2820
TAAAACCAAG ACTCACTAGT TAATCTAGCT GTATCAAGGA GACTTCTTTG ACAATTCTCC	2880
ACTTTTTTGC TAGAATAACA TCACACAAAC AGAATGAAA GGAGCTGACG CATTGTGCGT	2940
CCCTTTTGTC TATTTTTTAA GGAGAAAGTA TGCTGATTCA GAAAATAAAA ACCTACAAGT	3000
GGCAGGCCCT GGCTTCGCTC CTGATGACAG GCTTGATGGT TGCTAGTTCA CTTCTGCAAC	3060
CGCGTTATCT GCAGGAAGTC TTAGGCGCCC TCCTTACTGG GAAATATGAA GCTATTTATA	3120
GTATCGGGGC TTGGTTGATT GGTCTGGCCG TAGTCGGTCT AGTTGCTGGT GGACTCAATG	3180
TTGTCTCGC AGCCTATATT GCCCAAGGAG TTTATCCGA CCTTCGGCAG GATGCCTTCC	3240
GTAAATTCA AACCTTTTCT TATGCTGATA TTGAACAATT TAATGCGGA AATCTAGTCG	3300
TTTGAATGAC AAATGATATC AACCAGATTC AGAACGTTGT CATGATGACC TTCCAAATTC	3360
TTTTCAGACT TCCCCTCTTG TTCATCGGTT CGTTTATCCT AGCGGTTCAA ACCTTACCTT	3420
CTCTGTGGTG GGTGATTGTT CTCATGGTAG TCTTGATTTT TGGTTGACT GCTGTCATGA	3480
TGGGAATGAT GGGGCCTCGT TTTGCCAAGT TTCAAACCCT TCTTGAGCCG ATCAATGCCA	3540
TTGCCAAGGA AAATTTACGT GCGGTTCTGT TGGTCAAGTC CTTTGTCCAA GAAAAAGAGC	3600
AATTTGCTAA GTTTACAGAG GTCTCAGACG AGCTTCTTGG TCAAAACCTT TACATTGGTT	3660
ATGCCTTTTC AGTAGTGGAA CCCTTTATGA TGTGTTGGT TTACGGGGCG GTCTTCCTCT	3720
CTATTTGGCT GGTGCGGGGA ATGGTTTCACT CGGATCCGTC TGTGTTGGT TCCATCGCTT	3780
CTTTTGTTAA TTACCTAAGC CAGATTATCT TTACCATTGT TATGGTTGGA TTTTGGGAA	3840
ATTCTGTCAG CCGTGCCATG ATTTCCATGC GTCGTATTCT AGAAATCTT GACGCAGAGC	3900

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CAGCTATGAC CTTCAAGGAT ATCCCAGATG AAGAGTTGGT TGGAAGTCTT AGCTTTGAAA	3960
ATGTGACCTT TACCTATCCA ATGGACAAGG AACCGATGCT GAAAGATGTG AGCTTTACTA	4020
TTGAACCTGG TCAAATGGTT GGTGTAGTTG GAGCGACTGG TGCAGGAAAG TCAACCTTGG	4080
CTCAATTGAT TCCACGTCTC TTTGATCCAC AGGACGGGGC CATTAAAATC GGTGGCAAGG	4140
ATATTCGAGA AGTGAGTGAA GGAACCCTGC GTAAAACAGT TTCCATCGTT CTCCAACGTG	4200
CCATTCTTTT TAGTGGAACG ATTGCAGATA ACTTGAGACA GGGGAAGGGG AATGCTACTC	4260
TATTTGAAAT GGAGCGCGCA GCCAATATTG CCCAGGCTAG TGAATTCATT CATCGTATGG	4320
AGAAAACCTT TGAAAGTCCA GTTGAAGAAC GGGGAACCAA TTTCTCTGGT GGACAAAAAC	4380
AAAGGATGTC GATTGCGCGT GGGATTGTCA GCAATCCACG TATTCTGATT TTTGATGATT	4440
CGACCTCAGC CTTGGATGCC AAATCAGAGC GCTTGGTGCA AGAAGCTTTG AATAAGGACT	4500
TGAAGGGGAC GACAACCATT ATTATTGCTC AAAAAATTAG CTCGGTTGTC CATGCAGACA	4560
AGATCTTGGT TCTAAATCAA GGACGATTGA TTGGTCAAGG TACGCATGCA GACTTGGTTG	4620
CCAACAATGC CGTTTACCGT GAAATCTATG AAACACAGAA ATGAAAGACA AACTATAAGA	4680
AAAGTCAATA GTTTTATCTA AACTATTCTT TATTTCAATT TGATGATTTG GCGATGATTT	4740
TAGAGCACGG CAAAAAGCCC TTGAAAAAGT CCATTTTTTC AAAGGTAATC CTGTGTTAAT	4800
TTCAGAAATT ACATCACTTT TTGTTCTGCA AATGGCAGCT CTTTTTTTAG GATATAAAAC	4860
AGGGTTCGGA TAAGTTTTTT TGCAAGGTGG ATGATGGCTA CATGTGAATG TTTTCCTTGT	4920
TCTAATTTAG TCTTAAGATA GGCCTTAAAA GCAGGCCAAA AGCGAGGGCA TGCTTTGCCA	4980
GCTTGATGA GTACCTACCG CAGATGAGGG GAACTCCGTT TGACCATTC TCTGCTAAA	5040
TCAATCTGAT CTGACTGATA AATAGAAGAA TCCAGTCCAG CGAAAGCTTG TAATTGAGCA	5100
GGATTATCAA AGGCATGAAT ATTTCTGAATC TCAGCTAAAA TGACCGCCCC TAAACGATCC	5160
CCAATCCCAG TAACCGTCGT GATGACCGAG TTGAACTCAG CCATCAAGTC ATTGACACAT	5220
GTTTCCGCCT TGTCAATGAG CCTCTTGTA TGTTTGATGT TTTCATTACA CGAGATAAAA	5280
CGTCTATGCG TTATCAAAC TATTACCAAT TAAAACAAAA AGCTGTGGTT AGATCCTTTC	5340
GGAAATTGTC AAGCGATTGG AGGAAATGAA CTAATCCACA GCGGCTTATT CCAAGTATAC	5400
CACTTGGGCT TTGGCAGTAG CTAAGTGGC TAAATATAAT ATAAGGAGGA GTAAAATGAA	5460
GACAGTTCAA TTTTTTTGGC ATTATTTTAA GGTCTACAAG TTCTCATTTG TAGTTGTCAT	5520
CCTGATGATT GTTCTGGCGA CTTTTGCCCA AGCCCTCTTT CCAGTCTTTT CTGGACAAGC	5580
GGTGACGCAG CTAGCCAATT TAGTTCAAGC TTATCAAAAT GGCAATCCAG AACTTGTATG	5640

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GCAAAGCCTA TCAGGAATCA TGGTCAATCT TGGCCTGCTG GTTTTGGTTC TATTTATCTC	5700
TAGTGTAATA TACATGTGTC TCATGACGCG CGTGATTGCA GAATCGACCA ACGAGATGCG	5760
CAAAGGCCTC TTTGGTAAGC TTGCTCAGTT GACGGTTTCT TTCTTTGACC GTCGACAAGA	5820
TGGCGATATC CTGTCTCATT TTACCAGTGA TTTGGATAAT ATCCTCCAAG CCTTTAACGA	5880
AAGCTTGATT CAGGTCATGA GCAATATTGT TTTATACATT GGTCTGATTG TTGTCATGTT	5940
TTGAGAAAAT GTGACGCTGG CTCTCATCAC CATTGCCAGC ACCCCATTGG CTTTCCTTAT	6000
GCTGATTTTC ATCGTGAAAA TGGCAGCAA ATACACCAAC CTCCAGCAGA AAGAGGTAGG	6060
GAAGCTCAAC GCCTATATGG ATGAGAGCAT CTCAGGCCAA AAAGCCGTGA TTGTGCAAGG	6120
AATTCAAGAG GATATGATGG CAGGATTTCT TGAACAAAAT GAGCGCGTGC GCAAGGCAAC	6180
CTTTAAAGGA AGAATGTTCT CAGGAATTCT TTTCCCTGTC ATGAATGGGA TGAGCCTGAT	6240
TAATACAGCC ATCGTCATCT TTGCTGGTTC GGCTGTACTT TTGAATGATA AGTCTATTGA	6300
AACAAGTACA GCCCTAGGTT TGATTGTTAT GTTTGCACAA TTTTCACAGC AGTACTACCA	6360
GCCTATTATC CAAGTTGCAG CGAGTTGGGG AAGCCTTCAG TTGGCCTTTA CTGGAGCTGA	6420
ACGAATTCAG GAAATGTTG ATGCAGAGGA GGAAATCCGA CCTGAAAAGG CTCCAACCTT	6480
CACTAAGTTG CAAGAAAGTG TTGAAATCAG TCATATCGTT TTTTCATACT TGCCTGATAA	6540
ACCTATTTTG AAAGATGTCA GCATTTCTGC CCCTAAAGGC CAGATGACAG CAGTTGTTGG	6600
GCCGACAGGT TCAGGAAAAA CGACTATTAT GAACCTCATC AATCGCTTTT ATGATGTTGA	6660
TGCTGGTGGT ATTTATTTTG ATGGTAAAGA CATTGCTGGC TATGACTTAG ATAGTCTTAG	6720
AAGCAAGGTG GGAATTGTAT TGCAAGATTC GGTCTTGTTC AGCGGAACGA TTAGAGACAA	6780
TATCCGATTT GGTGTGCCAG ATGCTAGTCA GGAAATGGTT GAGGTAGCAG CAAAAGCAAC	6840
CCACATTCAC GACTATATCG AAAGTTTGCC TGATAAGTAC GATACTCTTA TTGATGATGA	6900
CCAGAGCATC TTTTCAACAG GGCAGAAGCA ATTGATTTCA ATCGCTCGAA CCCTGATGAC	6960
AGATCCAGAA GTTCTCATTC TCGATGAAGC AACTTCAAAC GTAGATACGG TGACAGAAAG	7020
CAAGATTCAG CATGCCATGG AGGTGGTTGT AGCAGGTAGA ACTAGTTTCG TCATTGCCCA	7080
CCGCTTGAAA ACCATTCTCA ATGCAGATCA GATTATTGTC CTAAAGATG GAGAAGTCAT	7140
TGAACGTGGT AACCACCATG AACTTTTGAA GCTAGGTGGC TTTTATTCAG AACTCTATCA	7200
CAATCAATTT GTTTTCGAAT AAGAAAGAAG TTGTCTATG TGGGCAGCTT TTTCTGTCC	7260
ATAAAAAATG TTTATCACAG CCTTAAAAAA AACATATTAG ACGAAAGTCA TTTTGAGTGA	7320
TATGATAGGA CTATCGTTAG CATTGAAAAG GAGAGGCATC ATGGCTAGAA CGGTTGTAGG	7380
AGTTGCTGCA AATCTATGTC CCGTAGACGC AGAAGGCAAA ATCATTCAAT CATCTGTATC	7440

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TTGTAGATTC GCAGAGATCA TTCGTCAAGT CCGTGGTCTC CCTTTAGTCA TTCCTGTTGG	7500
TGATGAGTCA GTTGTACGTG ATTATGTGGA AATGATTGAC AAATCATTG TGACAGGAGG	7560
CCAAAATGTT CATCCTCAGT TTTATGGAGA GAAAAAGACC GTCGAGAGCG ATGATTACAA	7620
TCTGGTCCGT GACGAATTTG AATTGGCACT CTTGAAGGAA GCGCTTCGTC AGAATAAACC	7680
AATTATGGCA ATCTGTCGCG GTGTCCAAC TGTCAATGTT GCCTTTGGTG GAACCCCTCAA	7740
TCAAGAAATC GAAGGTCAGG	7760

(2) INFORMATION FOR SEQ ID NO: 64:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 2723 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 64:

GAGGTTTTAA TTCACCTACC TCTSCCGTAT CTTTATTTAA AATGAATTCT TTTACGGTTG	60
TATTTCTTGC AAAATCTTTT ACAACAATCT TAATGTTTAG TGTCTTGTCT ATTATTTGTT	120
TAATATCATT AAATGATGTA TATTCCTTTC CATTATATA AATATGTTGT TCTTGAATCT	180
CACCATCGAA TCCATTATTT CTTTATCAT TGATGTTAAA GACTACAGAT TTTCCATCAG	240
CATATTCGAT ACTAGTATTT CCCTTAGGAT CAATGTTTAC TTCGGGTTTA ACATTATCAT	300
ATAAAAACTG ATAGTGGACT CCAACTGCTT TAGCATTCAA ATCGCTATAG CCAGTTTGAA	360
GATAAACATT TCCATCCATA TCTGTTACCT TATCTGGAAA TCCGTTTGCT TTATAGTCTT	420
TCATTCCTCA GTCCATGATG TCACCGTCTT TAACATTCAG CTTAATATTA AAATCTCTAG	480
TGTTATCAAT GTGTAAATCT CCGTAGATTA AATAATTATC TACAACCGAT TCATTAATCT	540
TCAATTCCTA GTTAAACCA CCCTTATCAG AAATCTTACC TCTTAAATAA AATTCTGGAT	600
TTCGTACATA AATTTTATTA GATTTAGATG GATTAAAGTA GTTCTTATCC ATTGAAAGGT	660
TTACTGGTTT GGTATCAATA AATAACATGG AGCCATCTTC TTTTATAGCT TCTACATTGA	720
ACTTATCCTC TCCAGTGTAT TCTTTATCAT CCTTACCAA TAATACAAGT TTAGAAGAAT	780
CTGTCACAAG ATTTCCGTCT TTATCGATAG CTTCCCTTTT ATCGTTCATT TTAAATGTAA	840
ACACTTGATA CCTTATAATG TTAAAGCCGT CCAAAGCCGA CATTAAATACA GATTGGGTAC	900
TTCTTCCATC TTCAACATTT CTAATATCAG CATAAATTGT TGTTTCTGAA AGGGCTCTTA	960
GATTAGGATT GGCCTTTTGT ATTTTGTGTA TATCTTCCTT GCTATAGACT CCATTTCTTT	1020

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CTAACATATC CGTTTTTCCA GGATTATAGG TAGTCACTTT TAGTGCATAG CCTTTTCTTA	1080
GAATGATATT ATCCTTTAAC AGATATTGTT GTTTTTCTGA ATCAGAATAG ATTTTACCAG	1140
ATTCCATTTT AGTTAAATTG TCTGGTTTGT TTTTGAAG ATCTCCTTCC CCTAATTCTA	1200
TGACATTCCC ATAACCTGAT ACATAGGGAT ATTCTGATTT AGTTTCCTTA ATTTTTCAG	1260
GCATTCTAAT TTTAATTTCA GCTTTTTTCT GATCATTATC TTTAACAAAT AATCTCATAT	1320
CTCCTGCAAA AGCTAATCCA TCCACAATAT CATTAAATTT AGCGTATAGA TCAAATGTCA	1380
TCGTTTTTGA GTGGAAATCA TACTTGGTCG CTTTGATTTT TATAGATTTA TAGTTATTCC	1440
CATAATATAC CTTGGCATT TTAGAAACAT TACTTATCTT TCCAAGAATT TCAAAGTGTC	1500
CATCTTTAGA CGGACTTAGA ACACCATAAA TTTTGTATTT GATTTCGTCA AGTTTCTCAG	1560
TTTCATATTC TAGATCAGTC CCATCATCGT AGGCTATTAT ATTTCTTTA TCATCGTATT	1620
TATAATCGTA TTCCTCCATT CTCTTACCAG TTTCATTGT AAAATCATCA ACTTCTCTAA	1680
ATTTCTTTTT AATGAGTTT TTTAAGTCTT TATTTTCAAA GTCTCTAATT GTTGAAATAT	1740
TTCTATCAAT AGTAAACTA GATTTTTCTT TAATAGACTC TTCATTTTCT TGATGATGAT	1800
GTTCTACCCC AGTTGTATCT TTTTGTAGAC TACCCTCTTT TCCATTTCTT AAATTTTAA	1860
ATTTAGATTC TGCAATCTCG CCAAGCTTTT GATATTTAGA TGAATCTTGA TCAGGATCTA	1920
CTAGATAATA GGAAATCATC CCCTTTTCAT CAGCCTGATT AGCAAATTTA ATTCTATGAA	1980
TCTTTGTGAA ATTGCTAGAA CCATCTAATG CAATGACTTC AATGATTTTT CCCCTTAAAT	2040
CTCCCGCACC TTTAATTTCA TAAATGGTAT TTCCGTCTTT ATCAAGTTTT CTATTTCTTC	2100
CTTGACCCCTC ACCTGCGTAA GTTACTTCAA GATTTTTTTC AACCTCTCCA TCTTCATTAA	2160
CAAGAGCGGC GCCAGCATAC CAACTTTCGT TCGCAATCTC GTCAAATTTT TCAGGATGTT	2220
CTTTTTGATC TCTCGCAAAT AGCGTTTCAT TCTTATACTG ATCTTTTACC TTATGATAAG	2280
TATCCTTTGT AATCAACTTA ATTTTTCAG GATTTGAAAA ATCAACCGAA ACAATCTTAG	2340
GGGCGGTGTT ATCAATTTTT ACAGGAATAT AGGAAACCTG CCATGGGTAA TCTTTAGTTA	2400
ATCTATATTT AAATTTATAG AAATATTGAC CTTCCGCAAT CGGTTCAAAT TGACCTCTTA	2460
TCTTAGTAGC AGGATCTTGA TTATCCTTAC TTCTGGTGC ATTTTCTTCT CTACCTCTAG	2520
GATTATAGAT GAGTCCATCC CACTTCAAGT CACCCCAAAC TTTTAGTTTA GATGATTGA	2580
TTCCCTTTGC ATCATTGCTT TTAGAATTTA AAATTCCTCT AATAAAGTGT TCTCTCGAAA	2640
TGACTTTTAA GTCTCTTTGA TTTTCTCCCT CTTTATTTGT ATTTACTATT GAAATCAATC	2700
CTTCTTCTGC ACTTCTTAAT ACA	2723

(2) INFORMATION FOR SEQ ID NO: 65:

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(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 11831 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: double
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 65:

AAAAAAGTGG GAATGACTCA AATCTTCACT GAAGCTGGCG AATTGATCCC TGTAACAGTT	60
ATTGAAGCAA CTCCAAACGT TGTTCCTCAA GTTAAACTG TTGAAACAGA CGGATACAAC	120
GCTATCCAAG TTGGTTTCGA TGACAAACGC GAAGTATTGA GCAACAAACC TGCTAAAGGA	180
CATGTAGCGA AAGCTAACAC GGCTCCTAAG CGCTTCATTC GTGAATTCAA AAACGTTGAA	240
GGCTTGGAAG TTGGTGCTGA AATTACAGTT GAAACATTCG CAGCTGGAGA CGTTGTTGAC	300
GTAACGGGTA CTTCTAAAGG TAAAGGTTTC CAAGGTGTTA TCAAACGCCA CGGACAATCA	360
CGTGGACCAA TGGCTCACGG TTCTCGTTAC CACCGTCGTC CAGGTTCTAT GGGGCCTGTT	420
GCACCTAACC GCGTATTCAA AGGTAAAAAC CTTGCAGGAC GTATGGGTGG CGACCGCGTA	480
ACAATTCAAA ACCTTGAAGT TGTACAAGTT GTTCCAGAAA AGAACGTTAT CCTTATCAAA	540
GGTAACGTAC CAGGTGCTAA GAAATCTCTT ATCACTATCA AATCAGCAGT TAAAGCTGGT	600
AAATAATAAA GAAAGGGGAA ATCAGTCACA ATGGCAAACG TAACATTATT TGACCAAAC	660
GGTAAAGAAG CTGGCCAAGT TGTTCCTAGC GATGCAGTAT TTGGTATCGA ACCAAATGAA	720
TCAGTTGTGT TTGATGTAAT CATCAGCCAA CGCGCAAGCC TTCGTCAAGG AACACACGCT	780
GTTAAAAACC GCTCTGCAGT ATCAGGTGGT GGACGCAAAC CATGGCGTCA AAAAGGAACT	840
GGACGTGCTC GTCAAGGTTT TATCCGCTCA CCACAATGGC GTGGTGGTGG TGTGTCTTC	900
GGACCAACTC CACGTTTATA CGGCTACAAA CTTCCACAAA AAGTTCGTCG CCTAGCTCTT	960
AAATCAGTTT ACTCTGAAAA AGTTGCTGAA AACAAATTCG TAGCTGTAGA CGCTCTTTCA	1020
TTTACAGCTC CAAAACTGC TGAATTTGCA AAAGTTCTTG CAGCATTGAG CATCGATTCT	1080
AAAGTTCTTG TTATCCTTGA AGAAGGAAAT GAATTCGCAG CTCTTTCAGC TCGTAACCTT	1140
CCAAACGTGA AAGTTGCAAC TGCTACAAC TCAAGTGTTT TTGACATCGC AAATAGCGAC	1200
AAACTTCTTG TCACACAAGC AGCTATCTCT AAAATCGAGG AGGTTCTTGC ATAATGAATT	1260
TGTATGATGT TATCAAAAAA CCTGTATCA CTGAAAGCTC AATGGCTCAA CTTGAAGCAG	1320
GAAAATATGT ATTTGAAGTT GACACTCGTG CACACAACT TTTGATCAAG CAAGCTGTTG	1380
AAGCTGCTTT CGAAGGTGTT AAAGTTGCCA ATGTTAACAC AATCAACGTA AAACCAAAG	1440

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CTAAACGTGT TGGACGTTAC ACTGGTTTTA CTAACAAAAC TAAAAAAGCT ATCATCACAC	1500
TTACAGCTGA TTCTAAAGCA ATCGAGTTGT TTGCTGCTGA AGCTGAATAA TCTAAGGAGG	1560
AAATATCGTG GGAATTCGTG TTTATAAACC AACAACAAAC GGTCGCCGTA ATATGACTTC	1620
TTTGGATTTC GCTGAAATCA CAACAAGCAC TCCTGAAAAA TCATTGCTTG TTGCATTGAA	1680
GAGCAAGGCT GGTCGTAACA ACAACGGTCG TATCACAGTT CGTCACCAAG GTGGTGGACA	1740
CAAACGTTTC TACCGTTTGG TTGACTTCAA ACCTAATAAA GACAACGTTG AAGCAGTTGT	1800
TAAAACAATC GAGTACGATC CAAACCGTTC TGCAAACATC GCTCTTGATC ACTACACTGA	1860
CGGTGTGAAA GCATACATCA TCGCTCCAAA AGGTCTTGAA GTAGGTCAAC GTATCGTTTC	1920
AGGTCCAGAA GCAGATATCA AAGTCGGAAA CGCTCTTCCA CTTGCTAACA TCCCAGTTGG	1980
TACTTTGATT CACAACATCG AGTTGAAACC AGGTGCTGGT GGTGAATTGG TACGTGCTGC	2040
TGGTGCATCT GCTCAAGTAT TGGGTTCTGA AGGTAAATAT GTTCTTGTTT GTCTTCAATC	2100
AGGTGAAGTT CGTATGATTC TTGGAACCTG CCGTGCTACA GTTGGTGTG TCGGAAACGA	2160
ACAACATGGA CTTGTAAACC TTGGTAAAGC AGGACGTAGC CGTTGGAAAG GTATCCGCCC	2220
AACAGTTCGT GGTTCGTGTA TGAACCTTAA CGATCACCCA CACGGTGGTG GTGAAGGTAA	2280
AGCACCAGTT GGTCGTAAAG CACCATCTAC TCCATGGGGC AAACCTGCTC TTGGTCTTAA	2340
AACTCGTAAC AAGAAAGCGA AATCTGACAA ACTTATCGTT CGTCGTGCGA ACGAGAAATA	2400
ATATTAAACT AGTCGCTTAA GCAACTAGTA AATCCGCCAG CTCGGTAGCG CTCCATAGGA	2460
GTGCAAGCCG CTGTGGTACA ACATTTAAAG GAGAAAATAT AAAAATGGGA CGCAGTCTTA	2520
AAAAAGGACC TTTCGTCGAT GAGCATTTGA TGAAAAAAGT TGAAGCTCAA GCTAACGACG	2580
AAAAGAAAAA AGTTATTAAA ACTTGGTCAC GTCGTTCAAC GATCTTCCCA AGTTTCATTG	2640
GTTACACTAT TGCAGTTTAT GACGGACGTA AACACGTACC TGTTTACATC CAAGAAGACA	2700
TGGTAGGCCA CAAACTTGGT GAATTTGCAC CAACTCGTAC TTACAAAGGT CACGCTGCAG	2760
ACGACAAGAA AACACGTAGA AAATAAGGAG AACATAAATG GCAGAAATTA CTTCAGCTAA	2820
AGCAATGGCT CGTACAGTAC GTGTTTCACC TCGTAAATCA CGTCTTGTTT TTGATAACAT	2880
CCGTGGTAAA AGCGTAGCCG ATGCAATCGC AATCTTGACA TTCACTCCAA ACAAAGCTGC	2940
TGAAATCATC TTGAAAGTTT TGAATCAGC TGTAAGTAAC GCTGAAAACA ACTTTGGTTT	3000
GGATAAAGCT AACTTGGTAG TATCTGAAGC ATTGCGAAAC GAAGGACCAA CTATGAAACG	3060
TTTCCGTCCA CGTGCGAAAG GTTCAGCTTC ACCAATCAAC AAACGTACAG CTCACATCAC	3120
TGTAGCTGTT GCAGAAAAAT AAGGAGGTAA AATCGTGGGT CAAAAAGTAC ATCCAATTGG	3180
TATGCGTGTC GGCATCATCC GTGATTGGGA TGCCAAATGG TATGCTGAAA AAGAATACGC	3240

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GGATTACCTT CATGAAGATC TTGCAATCCG TAAATTCGTT CAAAAAGAAC TTGCTGACGC	3300
AGCAGTTTCA ACTATTGAAA TCGAACGCGC AGTAAACAAA GTTAACGTTT CACTTCACAC	3360
TGCTAAACCA GGTATGGTTA TCGGTAAAGG TGGTGCTAAC GTTGATGCaC TCCGTGCAAA	3420
ACTTAACAAA TTGACTGGAA AACAAGTACA CATCAACATC ATCGAAATCA AACAACTGA	3480
TTTGGATGCT CACCTTGTAG GTGAAGGAAT TGCTCGTCAA TTGGAGCAAC GTGTTGCTTT	3540
CCGTCGTGCA CAAAAACAAG CAATCCAACG TGCAATGCGT GCTGGAGCTA AAGGAATCAA	3600
AACTCAAGTA TCAGGTCGTT TGAACGGTGC AGATATCGCC CGTGCTGAAG GATACTCTGA	3660
AGGAACTGTT CCGCTTCACA CACTTCGTGC AGATATCGAT TACGCTTGGG AAGAAGCAGA	3720
TACTACATAC GGTAAACTTG GTGTTAAAGT ATGGATCTAC CGTGGTGAAG TTCTTCCAGC	3780
TCGTAAAAAC ACTAAAGGAG GTAAATAACC AATGTTAGTA CCTAAACGTG TTAAACACCG	3840
TCGTGAGTTC CGTGGAAAAA TGCGCGGTGA AGCAAAAGGT GGAAAAGAAG TAGCATTCGG	3900
TGAATACGGT CTTCAAGCTA CAACTAGCCA CTGGATCACT AACCGCCAAA TCGAAGCTGC	3960
TCGTATCGCC ATGACTCGTT ACATGAAACG TGGTGGTAAA GTTTGGATTA AAATCTTCCC	4020
ACACAAATCA TACTCTGCTA AAGCTATCGG TGTGCGTATG GGATCTGGTA AAGGGGCACC	4080
TGAAGGTTGG GTAGCACCAG TTAAACGTGG TAAAGTGATG TTCGAAATCG CTGGTGTATC	4140
TGAAGAGATT GCACGTGAAG CGCTTCGACT TGCTAGCCAC AAATTGCCAG TTAAATGTAA	4200
ATTCGTAAAA CGTGAAGCAG AATAAGGAGA AGGCATGAAA CTTAATGAAG TAAAAGAATT	4260
TGTTAAAGAA CTTCTGGTTC TTTCTCAAGA AGAACTCGCG AAGCGCGAAA ACGAATTGAA	4320
AAAAGAATTG TTTGAACTTC GTTCCAAGC TGCTACTGGT CAATTGGAAC AAACAGCTCG	4380
CTTGAAAGAA GTTAAAAAAC AAATCGCTCG CATCAAAACA GTTCAATCTG AAGCGAAATA	4440
ATAGACTAGG GAAGGAGAAA TTTCAATGGA ACGCAATAAT CGTAAAGTTC TTGTTGGACG	4500
TGTTGTATCT GACAAAATGG ACAAGACAAT CACAGTTGTA GTTGAAACAA AACGTAACCA	4560
CCCAGTCTAT GGTAAACGTA TTAAC TACTC TAAAAAATAC AAAGCTCATG ATGAAAACAA	4620
TGTTGCCAAA GAAGCGGATA TCGTACGTAT CATGGAAACT CGCCCGCTTT CAGCTACAAA	4680
ACGTTTCCGT CTTGTAGAAG TTGTTGAAGA AGCGGTCATC ATCTAATCAA ACCTGAAAGG	4740
AGAAAAC TGA AATGATTCAA ACAGAACTC GTTTGAAAGT CGCAGACAAC AGCGGTGCTC	4800
GCGAAATCTT GACTATCAAA GTTCTTGGTG GTTCAGGACG TAAATTTGCA AACATCGGTG	4860
ATGTTATCGT GGCATCTGTA AAACAAGCTA CTCCTGGTGG TGCGGT TAAA AAAGGTGACG	4920
TTGTTAAAGC AGTTATCGTT CGTACTAAAT CAGGTGCTCG TCGTGCTGAT GGTTCATACA	4980

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TCAAATTTGA	CGAAAACGCA	GCAGTTATCA	TCCGTGAAGA	CAAAACTCCT	CGCGGAACAC	5040
GTATCTTTGG	CCCAGTTGCA	CGTGAATTGC	GTGAAGGTGG	CTTCATGAAG	ATCGTGTCAC	5100
TTGCTCCAGA	AGTACTTTAA	TTTTTAGGAA	CAAAC TAGTC	CCCTAGCTTC	AAGCTAGGGT	5160
GCCCTTATGG	GCGTAAGAAA	AATCAAGGAG	AAACCTAATG	TTTGTA AAAA	AAGGCGACAA	5220
AGTTCGCGTA	ATCGCTGGTA	AAGATAAGGG	AACAGAAGCT	GTTGTCCTTA	CTGCCCTTCC	5280
AAAAGTAAAC	AAAGTTATCG	TTGAAGGTGT	TAACATTGTT	AAGAAACACC	AACGTCCAAC	5340
TAACGAGCTT	CCTCAAGGTG	GTATCATCGA	GAAAGAAGCA	GCTATCCACG	TATCAAACGT	5400
TCAAGTTTTG	GACAAAAATG	GTGTAGCTGG	TCGTGTTGGA	TACAAATTTG	TAGACGGTAA	5460
AAAAGTTCGC	TACAACAAAA	AATCAGGCGA	AGTGCTTGAT	TAATCACGAA	GGAAAGGAGA	5520
AGTATAATGG	CAAATCGTTT	AAAAGAAAAA	TATCTTAATG	AAGTAGTTCC	TGCTTTGACA	5580
GAACAATTCA	ACTACTCATC	AGTGATGGCT	GTGCCTAAAG	TAGATAAGAT	TGTTTTGAAC	5640
ATGGGTGTTG	GTGAAGCTGT	ATCAAACGCT	AAAAGCCTTG	AAAAAGCTGC	TGAAGAATTG	5700
GCACCTATCT	CAGGTCAAAA	ACCACCTATC	ACTAAAGCTA	AAAAATCAAT	CGCCGGCTTC	5760
CGTCTTCGTG	AAGGTGTTGC	GATCGGTGCA	AAAGTTACCC	TTCGTGGTGA	ACGTATGTAC	5820
GAATTCTTGG	ATAAATTGGT	ATCAGTTTCA	CTTCCACGTG	TACGTGACTT	CCACGGTGTC	5880
CCAACAAAAT	CATTTGATGG	ACGCGGGAAC	TACACACTTG	GTGTGAAAGA	ACAATTAATC	5940
TTCCCAGAAA	TCAACTTCGA	TGACGTTGAC	AAAAC TCGTG	GTCTTGACAT	CGTTATCGTA	6000
ACAACTGCTA	ACACTGACGA	AGAGTCACGT	GCATTGCTTA	CAGGCCTTGG	AATGCCTTTT	6060
GCAAAATAAT	ATAGGAGGTA	AATCTAATGG	CTAAAAAATC	AATGGTAGCT	AGAGAGGCTA	6120
AACGCCAAAA	AATTGTTGAC	CGTTATGCTG	AAAAACGTGC	TGCATTAAAG	GCGGCAGGGG	6180
ACTACGAAGG	TTTATCTAAA	TTACCTCGCA	ACGCCTCACC	GACTCGTTTA	CATAATCGTT	6240
GTAGGGTTAC	GGGGCGCCCA	CATTCAGTTT	ACCGCAAATT	TGGTCTGAGT	CGTATCGCTT	6300
TTCCGGA ACT	TGCGCATAAA	GGTCAAATTC	CTGGTGTAAC	AAAAGCATCT	TGGTAATTTA	6360
AGATATCAAG	AGCGTCAAAA	CTCCAAGTAA	AAATAGGAAA	CTTGACGAAG	AACTAAAGT	6420
TTCTAGGAAA	GTTTATCTTT	TTACACACAGA	GTTTAGCCCG	GGTTCAATTG	GGCTTGCCAA	6480
TTTGAACACG	AGCTACAGCT	TTGGCAAAAA	AGACCAATTT	GCTTTGGAGC	ATTGCTTCTG	6540
CATTAAATTG	TCTATTTTTG	CTCGTGCTGT	TACGCTCTTT	GTATCATGTA	TTAACTAGCA	6600
AGTGCAACTT	GCAAACTACT	AGTAAGAGGA	GAAAAACAAA	ATGGTTATGA	CTGACCCAAT	6660
CGCAGACTTC	CTAACTCGTA	TTCGTAATGC	TAACCAAGCT	AAACACGAAG	TACTTGAAGT	6720
ACCTGCATCA	AACATCAAAA	AAGGGATTGC	TGAAATCCTT	AAACGCGAAG	GTTTTGTAAA	6780

543

AAACGTTGAA ATCATTGAAG ATGACAAACA AGGCGTCATC CGTGTATTTT TAAATACGG	6840
ACCAAATGGT GAGAAAGTTA TCACTAACTT GAAACGTGTT TCTAAACCAG GACTTCGTGT	6900
CTACAAAAAA CGTGAAGACC TTCCAAAAGT TCTTAACGGA CTTGGAATTG CCATCCTTTC	6960
AACTTCTGAA GGTTCGCTTA CTGATAAAGA AGCACGCCAA AAGAATGTTG GTGGTGAGGT	7020
TATCGCTTAC GTTTGGTAAA ATCAAGATAC AAAGCTCGTA AAGAACAAAG CAAAATTAGG	7080
AAGTTGGAGA AGTTTGTTTA CAAACAAGCC AACTTATCTA TTTTGCACAG TTCTTAGAGC	7140
GTGTTCAAGT CAGCTCTTGA ACTAAATAAG TATCTGAACC CCGTGAAAAC TGGCCGTTCT	7200
GGCCTGACAA TTAAACAGGA GAAAATAAAC ATGTCACGTA TTGGTAATAA AGTTATCGTG	7260
TTGCCTGCTG GTGTTGAACT CGCTAACAAT GACAACGTTG TAACTGTAAA AGGATCTAAA	7320
GGAGAACTTA CTCGTGAGTT CTCAAAAGAT ATTGAAATCC GTGTGGAAGG TACTGAAATA	7380
ACTCTTCACC GTCCAAACGA TTCAAAAGAA ATGAAAACTA TCCACGGAAC TACTCGTGCC	7440
CTTTTGAACA ACATGGTTGT TGGTGTATCA GAAGGATTCA AGAAAGAACT TGAAATGCGT	7500
GGGGTTGGTT ACCGTGCACA GCTTCAAGGA TCTAAACTTG TTTTGGCTGT TGGTAAATCT	7560
CATCCAGACG AAGTTGAAGC TCCAGAAGGA ATTACTTTTG AACTTCCTAAA CCCAACAACA	7620
ATCGTTGTTA GCGGAATTTT AAAAGAAGTA GTTGGTCAAA CAGCTGCTTA CGTACGTAGC	7680
CTTCGTTTAC CAGAACCATA TAAAGGTAAA GGTATCCGTT ACGTTGGTGA ATTCTGTTGC	7740
CGTAAAGAAG GTAAACAGG TAAATAATGT TGAGTGGTTG ATCATCAACC ACCAACCTAT	7800
TTTCCAACTT TGTGCATAGC ACACGATTTA AACTAAAGA GGTGAAAAC GTGATTTCAA	7860
AACCAGATAA AAACAACTC CGCCAAAAC GCCACCGTCG CGTTCCGCGA AACTCTCTG	7920
GAACTGCTGA TCGCCACGT TTGAACGTAT TCCGTTCTAA TACAGGCATC TACGCTCAAG	7980
TGATTGATGA CGTAGCGGT GTAACGCTCG CAAGTGCTTC AACTCTTGAT AAAGAAGTTT	8040
CAAAAGGAAC TAAACTGAA CAAGCCGTTG CTGTCGGTAA ACTCGTTGCA GAACGTGCPA	8100
ACGCTAAAGG TATTTAGAA GTGGTGTTCG ACCGCGGTGG ATATCTATAT CACGGACGTG	8160
TGAAAGCTTT GGCTGATGCA GCTCGTAAA ACGGATTGAA ATTCTAATAG GAGGACACTA	8220
GAAAATGGCA TTAAAGACA ATGCAGTTGA ATTAGAAGAA CGCGTAGTTG CTGTCAACCG	8280
TGTTACAAAA GTTGTTAAAG GTGGACGTCG TCTTCGTTTC GCAGCTCTTG TTGTTGTTGG	8340
TGACCACAAT GGTGCGTAG GATTTGGTAC TGGTAAAGCT CAAGAAGTTC CAGAAGCAAT	8400
CCGTAAAGCA GTAGATGATG CTAAGAAAA CTTGATCGAA GTTCCTATGG TTGGAACAAC	8460
AATCCACAC GAAGTTCTTT CAGAATTCGG TGGAGCTAAA GTATTGTTGA AACCTGCTGT	8520

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AGAAGGTTCT GGAGTTGCCG CTGGTGGTGC AGTTCGTGCC GTTGTGGAAT TGGCAGGTGT	8580
GGCAGATATT ACATCTAAAT CACTTGGTTC TAACACTCCA ATCAACATTG TTCGTGCAAC	8640
TGTTGAAGGT TTGAAACAAT TGAAACGCGC TGAAGAAATT GCTGCCCTTC GTGGTATTTT	8700
AGTTTCTGAT TTGGCATAAG AAAGGGGATA AAATGGCTCA AATTAAAATT ACTTTGACTA	8760
AGTCTCCAAT CGGACGCATT CCATCACAAC GTAAACTGT TGTAGCACTT GGACTTGGCA	8820
AATTGAACAG CTCTGTTATT AAAGAAGATA ACGCTGCTAT CCGTGGTATG ATCACAGCAG	8880
TATCTCACTT AGTAACAGTT GAAGAAGTAA ACTAATGAAG TTTTAGGGGA TGTGCACTGT	8940
ACCATCCCCCT AAAACTAGAT ATAGTCATCT ATGATGACAT CGTATAGGCG AGTTGATGGG	9000
GGAGACAACC TTTTCTCCCT TATCGGCGCT AGCATTTTAC AAAAGAGGAG AAAATAAAAA	9060
TGAAACTTCA TGAATTGAAA CCTGCAGAAG GTTCTCGTAA AGTACGTAAC CGCGTTGGTC	9120
GTGGTACTTC ATCAGGTAAC GGTA AACAT CTGGTCGTGG TCAAAAAGGT CAAAAAGCTC	9180
GTAGCGGTGG CGGAGTTTCG CTTGGTTTTG AAGGTGGACA AACTCCATTG TTCCGTCGTC	9240
TTCCAAAACG TGGATTCACT AACATCAACG CTAAAGAATA CGCAATTGTG AACCTTGACC	9300
AATTGAACGT CTTTGAAGAT GGTGCTGAAG TAACTCCAGT TGTCTTATC GAAGCAGGAA	9360
TTGTTAAAGC TGAAAAGTCA GGTATTAAAA TTCTTGGTAA CGGTGAGTTG ACTAAGAAAT	9420
TGACTGTGAA AGCAGCTAAA TTCTCTAAAT CAGCTGAAGA AGCTATCACT GCTAAAGGTG	9480
GTTCACTAGA AGTCATCTAA GAGAGGTGAC CTATGTTTTT TAAATTATTA AGAGAAGCTC	9540
TTAAAGTCAA GCAGGTTCTGA TCAAAAATTT TATTTACAAT TTTTATCGTT TTGGTCTTTC	9600
GTATCGGAAC TACCATTAACA GTTCCTGGTG TGAATGCCAA TAGCTTGAAT GCTTTAAGTG	9660
GATTATCCTT CTTAAACATG TTGAGCTTGG TGTGCGGGAA TGCCCTAAAA AACTTTTCGA	9720
TTTTTGCCCT AGGAGTTAGT CCCTATATCA CCSCTTCTAT TGTGTCCAA CTCTTGCAAA	9780
TGGATATTTT ACCCAAGTTT GTAGAGTGGG GTAAACAAGG GGAAGTAGGT CGAAGAAAAAT	9840
TGAATCAAGC TACTCGTTAT ATTGCTCTAG TTCTCGCTTT TGTGCAATCT ATCGGGATTA	9900
CAGCTGGTTT TAATACCTTG GCTGGAGCTC AATTGATTAA AACTGCTTTA ACTCCACAAG	9960
TTTTTCTGAC GATTGGTATC ATCTTAACAG CTGGTAGTAT GATTGTCACT TGGTTGGGTG	10020
AGCAAATTAC AGATAAGGGA TACGGAAACG GTGTTTCCAT GATTATCTTT GCCGGGATTG	10080
TTTCCTCAAT TCCAGAGATG ATTCAGGGCA TCTATGTGGA CTACTTTGTG AACGTCCCAA	10140
GTAGCCGTAT CACTTCATCT ATCATTTTCG TAATCATTTT GATTATTACT GTATTGTTGA	10200
TTATTTACTT TACAACCTAT GTTCAACAAG CAGAATACAA AATTCCAATC CAATATACTA	10260
AGGTTGCACA AGGTGCTCCA TCTAGCTCTT ACCTTCCGTT AAAAGTAAAC CCTGCTGGAG	10320

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TTATCCCTGT TATCTTTGCC AGTTCGATTA CTGCAGCCTG CGGCTATTCT TCAGTTTTTG	10380
AGTGCCACAG GTCATGATTG GGCTTGGGTA AGGGTAGCAC AAGACATGTT GGCAACTACT	10440
TCTCCAACTG GTATTGCCAT GTATGCTTTG TTGATTATTC TCTTTACATT CTTCTATACG	10500
TTTGTACAGA TTAATCCTGA AAAAGCAGCA GAGAKCCTAC AAAAGAGTGG TGCCTATATC	10560
CATGGAGTTC GTCCTGGTAA AGGTACAGAA GAATATATGT CTAAACTTCT TCGTCGTCTT	10620
GCAACTGTTG GTTCCCTCTT CCTTGGTGTG ATTTCCATTT TACCGATTGC AGCTAAAGAT	10680
GTATTTGGTC TTTCTGATGT TGTTCCTTTT GGTGGAACAA GTCTCTTGAT CATTATCTCT	10740
ACAGGTATCG AAGGAATCAA GCAATTGGAA GGTACCTAT TGAAACGTAA GTATGTTGGT	10800
TTCATGGACA GAACAGAATA AAAGTATTTA CTGAATCAGT AAATACTGAG GGAGTGGAGG	10860
TTTAAACTCT GACATTTGTA AGAGTTGGAT CTCCCCTCTT CTATTTTGTT TTTAAATCGG	10920
GGTGAAAAGA CTTTTTGCTT CTATTTAAAA ATAAAATAAG GAGATCAAAT CATGAATCTT	10980
TTGATTATGG GCTTACCTGG TGCAGGTAAG GGAACCTAAG CAGCAAAAAT CGTAGAACAA	11040
TTCCATGTTG CACATATCTC AACAGGTGAT ATGTTCCGCG CTGCAATGGC AAATCAAAC	11100
GAAATGGGTG TTCTTGCTAA GTCATATATT GACAAGGGTG AATTGGTTCC TGACGAAGTT	11160
ACAAATGGAA TCGTAAAAGA ACGCCTTTCA CAAGATGATA TTAAAGAAAC AGGATTCTTA	11220
TTGGATGGTT ACCCACGTAC AATTGAACAA GCTCATGCCT TGGACAAAAC ATTGGCTGAA	11280
CTTGGCATTG AACTAGAAGG TGTTATCAAT ATTGAAGTGA ACCCTGACAG CCTTTTGGAA	11340
CGTTTGAGTG GCGTATCAT CCACCGCGTA ACTGGAGAAA CTTTCCACAA GGTCTTTAAC	11400
CCACCAGTTG ACTATAAAGA AGAAGATTAC TACCAACGTG AAGATGATAA GCCTGAGACA	11460
GTAAAACGTC GTTTGGATGT TAATATTGCT CAAGGAGAAC CAATCATTGC TCACTACCGT	11520
GCCAAAGGTT TGGTTCATGA CATCGAAGGT AATCAAGATA TCAATGATGT CTTCTCAGAT	11580
ATTGAAAAAG TATTGACAAA TTTGAAATAA AGCGTTTTTC AACTTGCAA AAATCCGCTA	11640
CAAATGTTAT ACTGAGATAG TCTGACTTAT AATTGTTGTC TCTGTGTCTA GAGGCATCGA	11700
ATCGAAATTT ATGGAGGTGC TTTTGCGTGG CAAAAGACGA TGTGATTGAA GTTGAAGGCA	11760
AAGTAGTTGA TACAATGCCG AATGCAATGT TTACGGTTGA ACTTGAAAAT GGACATCAGA	11820
TTTAGCAGG G	11831

(2) INFORMATION FOR SEQ ID NO: 66:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 10726 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double

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(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 66:

CCCGGCATTT GAAAGCTATT CGTGAAGGAT TTATGATGGC AATGCCTTTG ATTTTAGTCG	60
GCTCTTTATT TCTTATTCTA ATCAGTTGGC CTCAAGAGGC TTTTACAAAT TGGCTGAATA	120
GTGTTGGATT GCTAAGTATC TTGACAACTA TGAATCAGTC AACAGTAGCG ATTATCTCCT	180
TGGTCGCTTG TTTCGGTATT GCCTACAGGT TGTCGGAAGG ATATGGTACA GATGGTCCGT	240
CGGCAGGGAT CATAGCCTTA TCCAGTTTTC TATTGATGGC ACCTCGTTT TCGAGTATGG	300
TTTATGATAA AAATGGGGAG CAGGTCAAGC AGTTATTTGG CGGCGCAATA CCATTTTCTA	360
GCCTGAATGC ATCTTCTTTG TTTATGGCGA TTACTATTGG ATTGGTTACA GCAGAGATTT	420
ATCGTATGTT TATCCAGCGC GGAATTACGA TAAAAATGCC AAGTGGTGTC CCAGATGTAG	480
TAAGTAAATC ATTTTCAGCT CTTTATCTG GTTTTACTAC TTTTGTTTTG TGGGCTTTGG	540
TCTTAAAAGG TCTTGAAGCG GCAGGAGTTG CAGGAGGTCT CAACGGACTC CTAGGTGCAA	600
TTGTTGGAAC ACCGCTTAAG TTAATTGCAG GAACGCTTCC AGGTATGATT CTATGTGTTA	660
TTGTAAACTC ATTCTTTTGG TTCTGTGGAG TTAATGGGGG ACAAGTTTTA AATGCTTTTG	720
TAGACCCAGT TTGGTTACAA TTTACTACAG AAAACCAAGA AGCTGTGGCT GCAGGACAAA	780
CACTCCAACA CATTATTACA TTACCGTTTA AAGATTTATT TGTATTTATT GGTGGCGGTG	840
GAGCGACTAT TGGTCTTGCG ATTTGTCTCT TCCTATTTAG TAAGAGTCGT GCGAATAAAA	900
CATTAGGTAA GCTAGCTATT ATACCGTCTA TTTTAAATAT CAATACAGCT ATTCTATTTA	960
CGTTTCCAAC AGTTTAAAT CCGATTATGC TGATTCCGTT TATTGCTACT CCTACAATCA	1020
ATGCCCTGAT TACCTATGTA TCAATGGCTG TAGGATTAGT ACCCTATACA ACAGGTGTAA	1080
TCCTTCCGTG GACAATGCCA CCGATTATAG GAGGCTTCCT TGCAACAGGG GCTAGTTGGC	1140
GAGGAGCTCT ATTACAAGTT GTTTTGATTT TGGTTTCTGT AGCAATTTAT TATCCATTCT	1200
TCAAAATTGC AGATAAACGC AATCTTGAAA AAGAAAAAGC TACTGTTGGA GGGAAATAAG	1260
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TTAAGTTACT ATATGAATCG GGTCTTTAAG ACTAACATAG AGCTTGTCGA GGAGAAGGAA	1380
GCGGATATTT TTGTAGGATT AGTCAATAAA GAGGACAGAA AAGACCATGT TCTTATCTCA	1440
TTAGACAAGG GTAAGGGGAG AATTGAGTCT AATACAATTG TAGGTTTACT TATTGGAATT	1500
TACCGAATGT TTCATGAATT TGGGGTTGTG TATACTAGAC CAGGGCCGAG ACATGACTTT	1560
GTTCCAGAGT TACGATTTGA AGATTTTFTA GATAAACAGC TATCTATAGA TGAAACAGCC	1620

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AGTTACTATC ATAGGGGAGT ATGTATAGAG GGAGCGGATT CATTTGAAAA TATACTAGAT	1680
TTCATTGATT GGCTACCTAA GATTGGGATG AACAGTTTTT TCATCCAGTT TGAAAATCCT	1740
TACTCTTTTT TGAAACGTTG GTATGAACAT GAATTTAATC CATATCTAAA TAAAGAACAA	1800
TTTTCAAATG AATTAGTACA AGAATTGAGT GATAGGTTGG ATAAAGAATT GCAAAAAAGA	1860
GGTCTTATTC ATCATCGTGT TGGTCATGGA TGGACAGGTG AAGTTTTAGG TTA CTCTTCA	1920
AAATTTGGCT GGAATCAGG TCTTAGTATT TCAGAGGAGA AGAAACCCTA TGTCGCTGAA	1980
ATAAACGGGA AACGAGAATT GTTTAATACG GCTCCGATTT TAACCAGCCT GGATTTTTCA	2040
AATCCAGATG TAGCTGATAA GATGGTAGAA ATTATCAAGG ATTATGCCAA GAAAAGACCT	2100
GATGTAACT ACTTACATGT ATGGTTGTCG GATGCTCGTA ATAATATTTG TGAATGCGAA	2160
AACTGTAGAC AAGAATTGGT TTCGGATCAG TATATTCGTA TTCTCAATCA ATTGGATAGG	2220
GCTTTAACGA GTGAGGGATT AGATACAAAG ATTTGTTTTT TGCTTTATCA TGAGTTGTTA	2280
TGGGCACCTC AGAAAGAAAA ATTAGATAAT CCTGAACGCT TTACCATGAT GTTTGCACCG	2340
ATTACAAGAA CATTTGAAAT GAGTTATGCA GATGTAGATT TTGACAATTC CATACCTACG	2400
CCTAAACCTT ATATGCGTAA TAAAATTATA CTCCGAATT CTCTTGAGGA AAATTTATCT	2460
TATCTTTTTG AGTGGCAAAA AGCATTTAAA GGAGATAGTT TCGTATATGA CTATCCTTTA	2520
GGGCGTGCTC ATTATGGCGA TTTAGGCTAT ATGAAAATTA GTCAAATAT TTACAGAGAT	2580
GTATCTTATC TTTCCAACCT ACATTTGAAC GGGTACATTT CGTGTCAAGA ATTACGTGCC	2640
GGATTCCCTC ATAATTTTCC TAATTATGTC ATGGGGGAAA TGCTCTGGAA GAAGACAAGA	2700
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GTTGTTCAAT ATTTAGAAAA ATTATCCATT TATTCCTCTT GTGATTATTT TAATGCAATT	2820
GGCAGCCGTC AAAGTGATGT TTTAGCGAAT CATTATTATA TAGCTTACAA TCTAGCTGAT	2880
AATTTTTTAC CAATTATTGA GGAAATATT TCTAAGTTAT TAAATAGTCA AAAGGATGAA	2940
TGGAAACAGC TCAGTTATCA TCGTGAATAT GTTGTTAAGA TGGCGAAGGC TTTATATCTT	3000
CAAGCAACTG GAAAAACAAG GCAAGCTCAA GATGAATGGA GAAATGTGTT GAATTATATC	3060
CGTGGGCACG AATTGCTATT TCAATCTAAT TTGGATGTTT ATCGTGTAAAT TGAAGTAGCA	3120
AAAAATTACG CTGGTTTCCA CTTATAAATC ATAAGTATAG AAAATGAACT AAGGTATTCA	3180
GAGAAGATTG ATCCTAAATA TTATGAAATT TAAGGATTTT TAAGATATTT AGGGTCAACT	3240
TTCTATTTAT ATCGTAGCGA AGTCATTTTA ATAATGATGT GTAAAAGATG GATCAAGATT	3300
GAGGAGGAAG AAAGATGAAA TCAAAGAAG AAATAAATAT GCTTGGTTTT ACAATTGTCC	3360

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CTTACGCAGG AGATGCAAGG TCAGATTTGA TGGATGCTTT GCGGTTTGCG AGAGATGGAT	3420
ATTTTGAACA GGCAAGAGAA TTGGTTGAGT CTGCAAACGA CTCAATAGTG TCTGCCCATC	3480
GAGAACAGAC TAATTTATTA GCGGAGGAGG CATATGGAGA TAATTTTGAA GTGAGCTTTA	3540
TTATGATTCA TGGTCAAGAT ACTTTGATGA CAACGATGCT ATTGTATGAT CAGGTAAAGT	3600
TTTTTATTGA TGAATATGAA CGAATTCGAA AGATTGAAGA ACATATTGGT TTGCAATGAG	3660
GATTAGTCAT GGAAAATTTA CAGGTAAAG CCTTACCGAA GGAGTTTTTA TTAGGAACTG	3720
CTACCGCTGC TTATCAAGTA GAGGGTGCAA CTAGGGTAGA TGGCAAAGGA ATAAATATGT	3780
GGGATGTTTA TTTGCAAGAA AATAGTCCGT TCTTACCAGA TCCAGCTAGT GATTTTTATT	3840
ATCGTTACGA AGAGGATATA GCTTTGGCGG CAGAACATGG TTTGCAGGCT TTGCGTTTAT	3900
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ATTATTACCA TAGAGTTTTT CAGTCTTGCT TAAAACATAA TGTGATTCCG TTTGTTTCTT	4020
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TGGCGCATGC TCTTGCAGTC CTCGAATTC ATCAATTAGG GATTGAGGGA AAGGTAGGTT	4320
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GCTACAATAA GCGATATGGT CTTTTCTTTG TTGATTATGA AACACAGAAG AGATATATTA	5040
AGAAAAGTGC TCTTTGGGTA AAAGGGCTAA AACGGAATTA AGGTTAGCGA TTTGACTGAT	5100
GTTTAATATG TTTTAAATAT GAGGTTGAAT TTTTATAGG AGGAGTTTTA TGGATAAGCT	5160

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AGTCGCTGCC ATTGAAAAGC AACAAAGGAA ATTTGAAAAA ATTTCTACTA ATAACTATAT	5220
GATGGCTATT AAAGATGGAT TCATTGCTAC TATGCCTTTA ATTATGTTTT CAAGCTTTTT	5280
GATGATTATT ATTATGATTC CTAAAAATTT CGGAGTAGAG TTACCGAGTC CAGCTATTGT	5340
CTGGATGAGA AAAGTGTATA TGTTAACCAT GGGAGTTTTG GGTATTATTG TTTCAGGGAC	5400
TGTTGGAAAG TCATTAGTTG GAAATGTTAA CAGAAAAATG CCTCACGGAA AGGTAATAAA	5460
TGATATTTCT GCAATGTTGG CAGCCATATG TAGTTATCTG GTATTAACTG TAACGCTTGT	5520
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GATAACTTCG TTTGTCAGTG CCTTTATTAC TGTAATGTT TACCGATTCT GTATTAAGCG	5640
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TTTGATTTTC TTTATGCGGT CTAAACAATT AAAATCGGTA GGTAAGCTA CAATTACTCC	6120
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GGGATTGTTA ATTGGAACGA ATTTTCAACT TATCTCCTTT GTATTTTAT CTTTGATTTT	6360
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GGTTCCTAGA ATAGGCCCGA TATTATTGAA ACAGCTAAAG ACAGCGCTGG TCACGACCAG	7140
AAAATCATTG CTATCTAGGC TGACAATAAA GATAAGCGCT AGCAAAATCA TAGCATAGAT	7200
GACAAAGTAC TTGAGAATCT TATGCTGGGT ATCTTTGTCA ATCACCCTTT TATTAACATG	7260
GAGGGTCAAA ACACGGTGGG GCGATAGGAT TGACAAAATT TGGTTTTTGG CAATTTTTGA	7320
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TGCCATGAGG AAAAGGAGGA TAAACTGGGA GAAGAGGGGC CAGTTGGTAA TATCTCCATA	7440
TCCAAAACCA GTTGTGTGAA TGATGTTGGA AACCTGGAAG AAGGTCATTT CAAAGCTCTT	7500
TGAAAACCC T GGCTAGAGGT AGAGGGTGT T GAGGCTAATC AAGCCTGTAG AAACCAGTAC	7560
AATGACCAAG TAAGCCCTAA GCTCTTCATC TCCAAAGAAG GCCTTGATGC GACGGAGCAT	7620
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GGTAATCAGT GAGCTGCCAT AGTGGGCAAT TCCGTCGTTA TAGACGGTAA AGCCTCCAGT	7740
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TTTTAGTTTG GATACAACCT TGCCAAAAAC AGGACCTGGA ACCTCAGCCT TCATCACCTC	7920
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TCCAATCAAG TGGGTAAAC TTCGCCAGAA GAGGAGGGAA CGGCTGAGAA CCGAAACGTC	8040
GTTCAAAATA CTGCTCCAG TAGTTGTAAA TCCAGAACTA ATTTCAAAAA AGGCATCAAT	8100
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CCTCGCGATC AAGTCATAAA TCTTGGTGAT GTTTGGCAAC AAGGTTGTTA CTAGGAGCTT	8460
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AGATGTAATC AGATTTTCCT CATCGACTCC TGTTAGAGTC GCAACGGCAT CATAGTGTG	8880
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TGGGAATTTT TCGCTAAAGA AGCTGGCGAT TTCAGGATTG ATTTCAATGA CTTTGTATC	9000
GATACGACTA TCTTTGAGAA TACCAAGTAG ATAATAGGCA ATTCTACCTG CCCCACGAT	9060
GAGAAGGCTC TTCACGGCGC GTGATTTAAA ATAATTATGG AAGAGTATCA TATCGACACG	9120
GTTACCAGTG ACAAAGATTC TATCTTTATC CTGTACAGTC ATGTCACCGC TTGGAATGAT	9180
AATTTGATGA TCCCTCTCTA TCGCACAGAC AATGACATTA CCAAATTTTT TACGAAAATC	9240
AGAAATGGGC ATTTGGCAAA GACCGCTGGT GGACTTGACG ACAAATTCCA TGAGGCTAAC	9300
GCGTCCACCA GCAAAGCGTT CGACAGACAG GCGTTGGGG AAGTCAATGA TATTCGCGAT	9360
ACCGCGGGCA GCCAAGAGCT CAGGATTAAC GATAAGAGAA AAACCGAGAA TATTCTTTTC	9420
CTTGAAATAA GAGTTAGAAT ATTCAGGGTT CCGCACCCGA ACGATAGTTT CTTTAGCTCC	9480
CATTTCTTG GCTAGAACTG CTGCAATCAT GTTGACTTCA TCGTGCTCAG TCAGGGCGAT	9540
AAAGATATCA CAATCTTGA CGCTGGCTTG CTCAAGAATG GCAAAATCGG CCCCCTTACC	9600
AAGGATACCA ATGATATCAA AGCGACTGAC AATATGATTG AGAACAGCTT CGTCTTGCTC	9660
AATCAGCAAA ACATCATGCT TTTCTGCAAC CAAGGAGCGA CAGAGGGCAA AACCAACTTT	9720
TCCCCCTCCG ACAAGGATAA TTTTCATAAT AAAACCTACT TTTTCATGAT GTAACATCA	9780
TACCCTTTTT CAAGAAAAAA TGCACCTACT AGCTAATAAC AAGAGTTTTT AGTGAAAATT	9840
CGCTATAAGG TAAAACTATA CCCTAACCAA TTGAAATAGC TATTAGCGAC TTTCTCTGAA	9900
ATATGCTATG ATAAAGGATA TACAAGGAGA TAAATGAAT AATAATTTAC TGGTATTACA	9960
ATCAGACTTT GGTCTGGTTG ATGGTGCGGT ATCGGCTATG ATTGGAGTGG CTTTAGAAGA	10020
GTCTCCAACC TTAAAAATAC ATCACTTGAC GCACGATATC ACGCCTTATA ATATTTTGA	10080
GGGGAGCTAT CGTCTCTTTC AGACGGTGGG TTAAGTGGCT GAGGGAACGA CGTTTGTATC	10140
GGTTGTGAT CCAGGTGTCG GTTCGAAACG TAAGAGTGTA GTTGCCAAGA CTGCAAAAAA	10200
TCAATACATT GTCACGCCAG ATAATGGGAC GCTTTCCTTT ATCAAGAAAC ACGTTGGCAT	10260
TGTAGCCATT CGTGAGATTT CTGAGGTGGC CAATAGGCGT CAAAACACAG AGCATTCTTA	10320
TACCTTCCAC GGTCTGATG TCTATGCCTA TACTGGTGCT AAAGTGGCCA GTGGTCACAT	10380
TACTTTTGAG GAAGTAGGGC CAGAGCTCAG TGTGGAACAG ATTGTAGAGC TTCCAGTCGT	10440

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AGCGACCATC ATAGAAGATC ATCTGGTGAA GGGAGCCATT GATATTCTGG ATGTGCGTTT	10500
CGGTTCGCTT TGGACCTCTA TCACACGGGA AGAATTTTAC AAGCTGGAAC CAGAATTTGG	10560
TGATCGTTTT GAAGTGACCA TCTATCATGC TGATATGCTG GTCTATCAAA ATCAGGTTGT	10620
CTATGGCAAA TCATTGTCAG ATGTGAGAAT TGGGCAACCs ATcTTTACrc TCAGCaTCTc	10680
CGATTAGCTG GGCAATTCGT TCTAGTTGGA TTTCGTCAAT CAAGGT	10726

(2) INFORMATION FOR SEQ ID NO: 67:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 7163 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: double
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 67:

TTATCTTTAA CGATATCAAT CAAGATCTGG TCAATAAAGG GATTGGGGCT TATCGTGAAG	60
TTGGCATCCA AGCCCATGGA TATGTCTGTG ACGTGACAGA CGAGGACGGT ATCCAAGCCA	120
TGGTCAAGCA AATCGAACAA GAGGTTGGTG TCATTGACAT CCTCGTTAAT AACGCTGGTA	180
TTATCCGCCG AGTTCCAATG TGCGAAATGA GCGCCGCTGA TTTCCGTAAG GTCATCGATA	240
TTGACTTAAA CGCACCATTT ATCGTTTCAA AGGCAGTTAT TCCTTCTATG ATAAAGAAAG	300
GGCATGGAAA GATTATCAAT ATTTGTTTCA TGATGAGCGA ACTGGGACGT GAAACAGTTA	360
GCGCTTATGC TGCTGCTAAA GGGGGCTTGA AAATGTTGAC CCGCAACATT GCGTCTGAAT	420
ACGGTGGAGC CAATATCCAA TGTAACGGAA TTGGACCGGG TTATATTGCC ACTCCTCAAA	480
CAGCACCTCT TCGTGAATTG CAAGAAGATG GTTCTCGCCA CCCATTTGAC CAGTTCATCA	540
TTGCAAAAAC ACCTGCTGCA CGTTGGGGAA ATACTGAAGA TTTGATGGGC CCTGCTGTCT	600
TTCTCGCTAG TGATGCCAGC AATTTTGTCA ATGGCCACAT CCTATATGTA GATGGCGGTA	660
TCTTAGCCTA CATCGGAAAA CAACCTGAGT AAAAATAGAA AGAAGATCTT ATGAAAATCG	720
CATTAAATCA TGAAAATAGT CAAGCTAGCA AGAATCACAT TATTTACGAT AGTCTAAAAG	780
AAGCGACAGA TAAAAAAGGC TACCAATTAT TTAACATATG TATGCGTGGA GAAGAAGGAG	840
AAAGTCAATT AACTTATGTG CAGAACGGAC TAATGGCTGC CATCCTTTTA AATACAAAGG	900
CAGTTGACTT TGTTGTTACC GGCTGTGGTA CGGCTGTAGG GGCTATGCTT GCTTTAAACA	960
GCTTCCCTGG TGTTGTCTGT GGTCTAGCAG TGGACCCAAC TGACGCTTAC CTTTATTCTC	1020
AAATCAATGG TGGTAACGCC TTGTCTATCC CTTATGCCAA AGGATTTGGC TGGGGGGCAG	1080
AACTGACCCT CAAATTGATG TTTGAACGCT TATTTGCTGA AGAAATGGGC GGTGGCTACC	1140

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CAAGAGAACG TGTAATCCCT GAACAACGCA ACGCTCGTAT CTTAAACGAG GTGAAACAAA	1200
TCACCCACAA TGATTTGATG ACCATCCTTA AAATAATCGA CCAAGACTTC CTCAAAGACA	1260
CCATCTCTGG CAAATACTTC CAAGAATACT TCTTTGAAAA CTGCCAAGAT GATGAAGTTG	1320
CTGCTTATTT GAAAGAAGTA TTAGCCAAGT AAAGCTATTC TAAACCAGAA AGGAACTAAT	1380
GGATGACGAA AATATTACTG TTTGGCGAAC CATTAATTTCG AATTTACCA TTAGATGCCA	1440
CCAGTATCGG CGATCATGTT GCCAGTTCGA CTTATTTTGG CGGATCAGAA ATTAACATCG	1500
CTTGTAATTT GCAAGCCCTG GGTATCTCAA CGAAAGTTTT TACCGCACTC CCTGCCAACG	1560
AGATTGGAGA TCGTTTTCTC ACATTCTTGA AACAGCACCA AATCGATACC AGTTCAATCT	1620
GTCGGCTTGG CGATCGAATC GGCCTCTACT ATTTGGAGAA CGGCTTTGGT TGTCGTCAAA	1680
GTGAAGTTTT CTACGATCGT AAGCATACGA GTATCAGCCA GATTCGGCCA AACATGCTAG	1740
ATATGGATTC TCTCTTTCAG GGGATTAGCC ATTTTCATTT TAGTGGAATC ACCGTAGCTA	1800
TCGGTCAAGA GGTCCGTGCG ATCCTTCTCC TACTCTTGGA AGAAGCCAAG CGCCGAGGAA	1860
TTGTCGTTTC AATGGATCTC AATCTGAGAA CAAAGATGAT TTCAGTCCTA GAAGCCAAGT	1920
ATGAATTTTC TAAGTTTGCA CGTTTFACTG ACTATTGCTT CGGTATTGAT CCTCTCATGA	1980
TTGATGACCA AAATCTAGAG ATGTTTCCAA GAGACAGTGC TAGCCTAGAA GAGGTGGAAA	2040
ATCGCATGCG ACTTTTAAAA GAAGCCTATG GTTTCAAGGC CATTTTCCAT ACCCTCCGCT	2100
CTAGTGATGA GCAAGACAAA AATGTCTATC AAGCCTATGC TCTAGAAGAA CTATTTGAAG	2160
AGTCTGTCCA ACTAAAACT GCAGTCTATC AACGAATTGG TAGCGGGGAT GCCTTTATAT	2220
CTGGTGCCCT TTACCAACTA CTCCATCATT CCTCCCTAAA AACTACCAT T GACTTTGCAG	2280
TTGCGAGCGC AACTCTCAAA TGCACTCTTC CAGGAGACCA TCTCTCCACT TCCTCAACTA	2340
GTATTGAAAA TTTACTGGCA AATGCACAAG ATATCATTCG TTAGGAGAAT TACATGACCA	2400
AATCAGATAC GATTATTGAA CTAAAAAAC AAAAAATTGT CGCTGTTATT CGAGGAAATA	2460
CAAAGGAAGA AGGACTACAA GCCTCGATTG CTTGTATCAA GGGCGGTATC AAAGCTATTG	2520
AAATCGCCTA TACCAATCAG TATGCAGGAC AAATCATCAA GGAAC TTGTA GACTTGTATC	2580
AGGACGATCA GAGTGTTTGT ATCGGTGCAG GTACTGTGCT TGATGCCGTA ACTGCTAGAG	2640
ATGCCATTCT AGCTGGAGCA AATTACGTTG TTTCTCCATC TTTCCATGCT GAAACTGCGA	2700
AAATGTGCAA TCTCTACAGC ACACCGTACA TTCCAGGCTG TATTACCCTC ACAGAGATCA	2760
CGACTGCACT TGAAGCCGGT AGTGAAATCA TCAAACCTCT CCCAGGTAGT ACTCTCAGTC	2820
CAGCATATAT CTCTGCAGTC AAGGCACCGA TCCCACAAGT TTCCGTAATG GTAACCGGAG	2880

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GAGTCGGCCT AAACAACATC CCTCAATGGT TCGCTGCTGG TGCAGATGCC GTTGAATTG	2940
GTGGCGAACT CAATAAACTC GCTTCCCAAG GCAACTTTGA CCGCATCAGC GAGATTGCCC	3000
AACAGTATAT TACACTCAGA TAAATCATA ACTACCCGTC TAACGGGTGG TTTATCTCAG	3060
AGCTATAAGC CCAAATCATC AGCCAGCGCC TAAAGACGCT GGCTTTCACG TTGTTCAAGC	3120
CTTATTGCTC TTGACTCGTC ACTTGCTCT TTAAGAGACT TTGGTATTAC TTACCACTAT	3180
CCCTAAAGGG ATCCTCATAT TCTTTTACAC TCAATTTATC TAGTGCTATA GTAGATTGAA	3240
ACTGGAATAG TACACCTCTG CTTCTAAAAC ATTGTTAAAA ATCGATTTGA CTGTCCTGAT	3300
CGATTTTGTC CTGTTCTTAT TTCATTTTAC TATATATCAT ACTTTACTCG TTCTCAAATT	3360
TTCATACTCA TGAAGAAATC ATCCACTCGA TAATTTCTTT AATCTTGACT ATATTTCTTA	3420
ATTGTGGCTT CATTAAAGCCC TACTGGACTT ACATAATAAC CTTCTCCCA GAAATGCCGA	3480
TTCCCAAAC TGTACTTGAG ATTGGCGTGT TTGTCAAACA TCATGAGTGC ACTTTTGCCT	3540
TTTAAATACC CCATAAACT TGAAACACTT AGCCTCGACG GAATACTGAC TAACATGTGT	3600
ACATGGTCTG GCATTAAGTG ACCCTCGATC ATTTCAACAC CTTTATAACT ACACAAGCGA	3660
TGAAATATTT CGTCTAACT ACTTCTATAT TGATTATAGA TGACTTTTCG TCTATACTTA	3720
GGGGTGAACA CAATATGATA GAACACCTCC ACTTTGTGTA TGATAAACTA TGAGTCTTTT	3780
GTGCCATATT TTTTCTCCTT TCGCTTTACA ATTGGATTGA ACACCTTTAT TGTATCGCGT	3840
TTGGAGTTTT TTTGGTATAA CCTTCGACGC GCACCCGTAT AGCGGGTGGT TGTTTTGTCT	3900
CGCACCTCAC GGAGCGAGAC GGACTAATAT AGTGGAGTGA AATAGGATAC GAACAAATTG	3960
ATTAGGAAAA TCAAATGAAT TTATAGAAAT CTTTTCAGCAG TTATAACGTT CTATTCTAGT	4020
TTCAAAACGC TATAGTCACA TAATAATGAA GTAAAAAAGG ATAAGTATCA ACTTATCCTT	4080
TTTAAAAGA AAAATCCGAA GATATTTGGC CTTCTTCGGA TTTTCTCTAT TTTCCACAGT	4140
TTCATGTAAT TCATCTAGAT GATGAACAAA TTAGTTGTTC TTTCTCTAC GGAATAGATA	4200
AAATGCCCCA AGTAGCAAGA ACCCTAGACT TGCCAAGATT GACTGACCTT CTCCTGTCTG	4260
AGGGAGATTC TTTTGATCCG AATGGTTCTT TTCCTCTTCA GATTTTTCCT TTTCTTTTGA	4320
ATTCTGTACT TGTGGCTGAG CTGCTTGCTC TAGCTTTTFA AAGACTTCCT GATCTGGAGC	4380
TGATTCCCTGG GTTTCAGGAT TATAGTAGGC AATCTTATAT TCATCCCCTT CTTTTCGAAT	4440
GGTATAGACT CCACGTTTCA AAACCTGGAA TTGGTTGGAA ATAGTAGAGA CAGAATCATC	4500
ATATTTTACA ATGCCCCAAA CTCCTTGTTT AGCATCATAA ACAGACTGAA GGGTTTCGTT	4560
ATTTTCGATG AGGCTACTTT CTAACCTCTT TATCATTTGA TTGAAGGTGG CACGATCCAC	4620
GTTAGGAATG AGCATATAGC CATAAGAATC TCTATTTTGC TTATGAGCCT GACTAATCGT	4680

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AAGAAATTCA TTTTCAACTT CCTGTCTGA CTGTCCTTCA TTGATATCCT TCCAGGCTCC	4740
CTTTTGCAA GCCTTACTCA TACTGATTGA ACTCTTCTTA AAGAAAAAGT AACCAATATT	4800
CTTTTTCGAA TCGAACGATT CTAAAAAGAC ACTTTGGGTT TCAGGATAAT CCTTTTCTTG	4860
TTCTGTAAGG GAGGCTTCTT TATCATTGAC ATAGACTTTA TATGGATTAC CTGATTCCAG	4920
TTTTCTCTGG TCAATTGTAG TTGCAGCAGT ATCTGTTGAA GTGTTTGGGA TATTGCTTCC	4980
TAAAAAGGCG ATCTTATCCT TTAGCATAAA CCAGCTCTTA TGAGCAGTCA ATGTTTGATT	5040
CCAGTTGGTG AAATCCATGG TTGCTGTGCG ATTGGCATCA TCTAGTTTGC TCGTTCCAAC	5100
GAAAGCAGAC GGTAAGAACTT TACCTGTATC GCTATCCGCT CTCTTAGCAT CCGTCTCTGT	5160
TGTACCAGGC ATCTTATATG GATTAAGTGT TGGCCAGTAG CCATCGCTAT AGTGAAGTCAA	5220
ATCGCCATTG TAAAGATAGA ACATCCCATC ACTCGTATAC CAACCACGTT TATTTTCCTT	5280
GTTTCATGTGT TCGTAATTCA AGGTACCACT GGAAAAGAGT GACAAGCCAA ATCCAAACCC	5340
TTTCTCTGCA TTGTACATGG CTGTTTTATC CATCTTGTTA AAGGCAGATA GGTAAGTTGG	5400
TCTTGGAACA CTTGCGACTC CTGCATCACT TAACAAGGAT TGCATCAAAC TGATATCCTT	5460
ATAAGTCTTC AAATTCTTAA AGACATCATA ATAAGTATCC GATTGAACAA TGGTCTTCAC	5520
AAGACTCTGC AAACATTGTT TGGTTTCTCC TTCAGACATA TCCGCTATTC GGTGAATCCC	5580
TCTTAGTACT TCTACTGCGG CCACGTGCCC CTCGCTATTT GCACGACTGA TCGAGCGTCC	5640
ACGACTCATA TCCATCAACT CTCCATTAC CAGCAAAGGA GCAAACGATT TATCAATCCA	5700
GTGGTACATG GTTTGCATTT TATCTTTATC GATTGGATTG TTGGTCTTTT GAATGACTGG	5760
CAACAGTTGA GACAGGCCAT CAATCAAAAC ATTCCCATAA GCACCCGTAT AGGCAACATT	5820
GGTGTGGTCG ATATAGGATC CATCTTGATA AAAACCTTCA CCTTGGTCTA CCAACTTGAA	5880
CACTTGCTCA ATCGAGCGAA TGGTAGAAGA AATTTCTTGA TCATCCTTAC GCAGTAAACC	5940
AGCTATTACT TTTACCCTTC CCATATCAAC TAAGTTTCCA CCTAGAGCCT TGAATGGGTT	6000
ATCAGTCGTC TTTCCGAAAT GTTCGGGATC TGGTACAAAT TTTTCAATCA CATCTGTATA	6060
TTTTTTAATT TCCTCATCAG AGAAGTATTC TTTCATCAGA GACAAGGTAT TGTTGATGGC	6120
ACGAGGTGTA CCGATTTTAT AATCCACCA GTTCCCAACA ATGCTCTTTT CACTATTGTA	6180
GACATGTTTA TGCATCCATT CCATGGAATC CCTGACTGTT CGAACGACAG TTTTATCTTG	6240
ATAATAACGA GAAGAAGGAT TGGTCACTTG CTTGGCCATC TCCTCCAATT TCCGATAAGT	6300
GGCAGTCAGA TTTGCAGACG TTTTATAATT TGAATTTTTT TCCCACAAAT AGGTGCGGTC	6360
CGCCTGACTT GAAATACTGG ATAGGCTATC AGCTACCTTT CCTTCCAATT CCTGGTTTAA	6420

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TTTGGCCATC	TGTTCAATTT	TAGAATCATA	GTATTGATTG	CCAGCGATGA	TGCCATTCCA	6480
GTCATCCAAA	CGGTCTGTGT	ATGCATCCTT	AACAGAGGCC	AGAATCTTCA	AAGGAATCTT	6540
TTTCACTTCC	TTGCCATCTT	TACTGACAAT	GACATTGGTT	GTCCCTTCCT	TAAGAGGTTC	6600
TAAAATTCCA	TTTTTGACTG	AAGCAACGTC	AGGATTTTCT	ACCTTATAAG	TATAGTCCGC	6660
AAGAGAAAAA	ACATGTTTTT	TTCCAATTGG	TAAATCAATC	TTTTCTCAA	GCTGTTTATC	6720
TGTTTGAGAA	TCCTCAGAAA	GCTGGTCTGC	TACCTCTACC	AGCTCAATAT	CCTTAAAGGA	6780
AACAGTCCCA	GTTCTGTTT	CATAGAATAA	CTCCAGCTTG	ATTTTATCAA	CATCTAAAGT	6840
CGGGCTATAG	TCTGCTTCAA	TGGTCTGCCA	GTCCTTTGTT	CCTGACGTCG	TTGCAGAATT	6900
CCACAATCGC	TTGTCCTTAC	CACTTTCCTC	AATGATACGA	ACTTTGGCAA	TCCCGATTTT	6960
ATTATCTGTT	TTAATCTTGA	AACGCAGTTT	ATACTTTTTC	TTAGCTTCAA	TAGGAACCAT	7020
ACGGTGAAGC	GCTGCCCTTA	ATTTCTCATG	GCTTGAGATA	GTGATAGCCC	CATCCTTAGC	7080
CTCAATGACT	CGAGTTGAGG	CATCTGCACT	ATTCTTCTGG	TCTACCCAAG	CTGACCACCC	7140
CCTGAGCTTT	GCTTCCTGTC	CGG				7163

(2) INFORMATION FOR SEQ ID NO: 68:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 9244 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 68:

CGTTATAACA	TACATGTAAG	CGGTACCCAA	AATGGTGCCA	AGTCAAAATT	TTTAAGGAGG	60
AAAATACATG	TCTTCACATC	CAATTCAGGT	CTTCTCAGAA	ATTGGGAAAC	TGAAAAAAGT	120
TATGTTGCAC	CGTCCAGGCA	AGGAGTTAGA	AAACTTGTTG	CCGGACTATC	TTGAAAGGCT	180
TCTTTTGTAT	GATATTCCTT	TCTTGAAGA	TGCTCAAAAA	GAACATGATG	CATTTGCCCA	240
AGCTCTTCGC	GATGAAGGAA	TTGAGGTTCT	CTACCTAGAA	CAACTCGCTG	CTGAATCATT	300
GACCTCTCCA	GAAATCCGCG	ATCAATTTAT	CGAGGAATAC	TTAGACGAAG	CCAACATCCG	360
TGATCGTCAA	ACCAAGGTTG	CTATTCGTGA	ATTGCTTCAC	GGCATCAAGG	ACAACCAAGA	420
ATTGGTTGAA	AAAACAATGG	CTGGGATTCA	AAAAGTTGAA	TTGCCAGAAA	TTCTTGACGA	480
AGCTAAAGAT	CTAACTGACT	TAGTTGAATC	AGAGTATCCA	TTTGCAATTG	ACCCGATGCC	540
AAACCTCTAT	TTCACCTGCG	ACCCATTTGC	AACAATTGGA	AACGCCGTAT	CGCTTAACCA	600
CATGTTTGCA	GACACTCGTA	ACCGTGAAAC	ACTCTACGGT	AAGTATATCT	TCAAATACCA	660

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CCCAATCTAT GCGGAAAAG TGGATTGGT CTACAACCGT GAAGAAGATA CGCGTATCGA	720
AGGTGGAGAC GAGTTAGTTC TTTCTAAAGA CGTCCTTGCA GTAGGTATCT CTCAACGTAC	780
AGACGCAGCT TCTATCGAAA AACTTTTGGT CAACATCTTC AAGAAAAATG TTGGCTTCAA	840
GAAAGTTTGT GCCTTTGAAT TTGCTAACAA CCGTAAATTC ATGCACTTGG AACTGTCTT	900
CACTATGGTA GACTATGACA AGTTCATAT TCACCCAGAA ATCGAAGGCG ACCTTCACGT	960
TTACTCAGTT ACTTACGAAA ACGAAAACT TAAAATCGTT GAAGAGAAAG GTGACTTAGC	1020
TGAACTTCTT GCTCAAAACC TTGGTGTAGA AAAAGTTCAT TTGATTGCTT GCGGTGGTGG	1080
CAATATCGTA GCAGCTGCCG GTGAACAATG GAACGACGGT TCTAACACTT TGACCATCGC	1140
ACCTGGTGTG GTAGTTGTTT ATGACCGCAA TACCGTGACC AATAAGATTT TGGAAGAATA	1200
CGGGCTTCGC TTGATTAAGA TTCGCGGAAG TGAATTGGTT CGGGGCCGTG GTGGACCTCG	1260
TTGTATGTCT ATGCCATTTG AACGTGAAGA AGTGAATCG CTGTTTGATA TTCGTCAATA	1320
GAAAATGTAA AAAATAGAAA GAGGAAATA TAAAATGACA AATTCAGTAT TCCAAGGACG	1380
CAGCTTCTTA GCAGAAAAAG ACTTTACCCG TGCAGAGTTA GAATACCTTA TTGGTCTTTC	1440
AGCTCACTTG AAAGATTTGA AAAAACGCAA TATTCAACAC CACTACCTTG CTGGCAAGAA	1500
TATCGCTCTC CTATTTGAAA AAACATCTAC TCGTACTCGT GCAGCCTTTA CAACTGCGGC	1560
TATCGACCTT GGTGCTCACC CAGAATACCT CGGAGCAAAT GATATTCAGT TGGGTAAAAA	1620
AGAATCTACT GAAGATACTG CTAAAGTATT GGGACGTATG TTTGACGGGA TTGAATTCCG	1680
CGGATTCAGC CAACGTATGG TTGAAGAATT GGCAGAATTC TCAGGCGTTC CAGTATGGAA	1740
CGGTCTAACT GACGAATGGC ACCCAACTCA AATGCTCGCT GACTACTTGA CTGTTCAAGA	1800
AAACTTCGGT CGCTTGAAG GCTTGACATT GGTATACTGT GGTGATGGAC GTAACAACGT	1860
TGCCAACAGC TTGCTCGTAA CAGGTGCTAT CCTTGGTGTC AATGTTTACA TCTTCTCACC	1920
AAAAGAACTC TTCCCAGAAA AAGAAATCGT TGAATTGGCA GAAGGATTTG CTAAAGAAAG	1980
TGGCGCACAT GTTCTCATCA CTGAAGATGC TGATGAAGCA GTTAAAGATG CAGACGTTCT	2040
TTACACAGAC GTTTGGGTAT CAATGGGTGA AGAAGACAAA TTCCGAGAAC GTGTAGCTCT	2100
TCTTAAACCT TACCAAGTCA ATATGGACTT AGTTAAAAAA GCAGGCAATG AAAACTTGAT	2160
CTTCCTACAC TGCTTGCCAG CATTCACGA TACTCACACT GTTTATGGTA AAGACGTTGC	2220
TGAAAAATTT GGTGTAGAAG AAATGGAAGT AACAGACGAA GTCTTCCGCA GCAAGTACGC	2280
TCGCCACTTC GATCAAGCAG AAAACCGTAT GCACACTATC AAAGCTGTTA TGGCTGCTAC	2340
ACTTGGTAAC CTTTATATTC CTAAAGTATA ATTTTAGATA ATAAACCGTC TACCAACAGC	2400

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TATGAGGGCT	GCGACTAATA	GCTTTAGTCC	GGTCCTCTTT	TATGTAATGG	TAATCTATTA	2460
TTTCTTATAA	AATATGTGAA	AAATCATTA	ATTGAAATCT	AAACGCATTC	TATTGAGTGT	2520
GATAAAGGAG	AATTTATGGC	AAATCGTAAA	ATTGTAGTAG	CTTTGGGAGG	AAATGCGATT	2580
CTTTCTTCTG	ACCCATCAGC	AAAGGCTCAA	CAAGAAGCTT	TAGTTGAAAC	AGCTAAGCAT	2640
CTTGTAATA	TGATTAAAA	TGGAGATGAT	CTGATTATCA	CTCACGGTAA	TGGACCTCAA	2700
GTTGGGAATC	TCTTGCTCCA	ACATTTGGCA	TCAGACTCTG	AAAAGAACCC	TGCCTTCCCA	2760
CTCGACTCAC	TTGTCGCTAT	GACAGAAGGT	AGCATCGGTT	TCTGGTTGAA	AAATGCTTTG	2820
CAAAATGCTC	TCTTGATGA	AGGCATCGAA	AAAAATGTTG	CCTCTGTTGT	AACGCAAGTT	2880
GTCGTAGATA	AAAATGATCC	AGCTTTTGTT	AACTTGAGTA	AACCAATCGG	TCCTTTCTAT	2940
TCAGAAGAAG	AAGCAAAAGC	AGAAGCCGAA	AAAAGCGGAG	CGACTTTCAA	GGAAGATGCT	3000
GGCCGTGGCT	GGCGTAAGGT	CGTTGCCTCA	CCAAAACCTG	TTGACATCAA	AGAAATTGAA	3060
ACCATCCGTA	CTCTTTTAAA	TAATGGTCAA	GTCGTCGTAG	CTGCAGGTGG	TGGCGGTATT	3120
CCCGTCGTCA	AAGAAAACAA	TGGACATTTG	ACTGCTGTCTG	AAGCGGTTAT	TGATAAAGAC	3180
TTGCTTTCCC	AACGTTTGGC	AGAATTGGTT	GATGCAGACC	TCTTCATCGT	TTTGACAGGT	3240
GTAGATTATG	TATTTGTTAA	CTACAACAAG	CCAAACCAGG	AAAAATTGGA	ACATGTGAAT	3300
GTTGCCCAGC	TGGAAGAATA	TATCAAACAA	GATCAGTTTG	CACCAGGTAG	CATGCTTCCA	3360
AAAGTAGAAG	CAGCTATCGC	TTTTGTCAAT	GGTCGTCCAG	AAGGAAAAGC	AGTTATTACT	3420
TCCCTTGAAA	ATCTAGGCGC	CTTGATTGAA	TCTGAAAGCG	GAACAATTAT	TGAAAAAGGA	3480
TAAGTTGTTT	TACTAATAAG	ATGTATTCTA	TTTCTAGTAT	CTTTATATCA	AATTAGAAAT	3540
TATTCTTGAA	AACATGTACA	ATATTTCAAA	AGATACTAGT	TTTAGACTTT	AATATGGTAA	3600
AACAAATATA	AATAGAAAGC	GTTTTCTTGA	ATGTTTATTT	AAGAAAGTAG	TTGGTTTTTT	3660
ACACTTTGTT	AGACATCAGG	AGGAAAAACA	AATGAGTGAA	AAAGCTAAAA	AAGGGTTTAA	3720
GATGCCTTCA	TCTTACACCG	TATTATTGAT	AATCATTGCT	ATTATGGCAG	TGCTAACTTG	3780
GTTTATCCCT	GCGGGGGCCT	TTATAGAAGG	TATTTACGAG	ACTCAGCCTC	AAAATCCACA	3840
AGGGATTTGG	GATGTCCTCA	TGGCACCGAT	TCGGGCTATG	CTAGGTACTC	ATCCAGAGGA	3900
AGGTTCGCTC	ATTAAAGAAA	CGAGCGCAGC	GATTGATGTA	GCCTTCTTCA	TCCTTATGGT	3960
TGGTGGTTTC	CTTGGCATTG	TCAACAAAAC	TGGTGCTCTT	GACGTAGGGA	TTGCCTCTAT	4020
CGTGAAGAAG	TATAAGGGCC	GCGAAAAAAT	GTTAATTTTG	GTAATGATGC	CTTTGTTTGC	4080
CCTCGGTGGT	ACAACTTATG	GTATGGGTGA	AGAAACAATG	GCCTTCTATC	CACTCCTTGT	4140
GCCAGTTATG	ATGGCCGTTG	GTTTTGATAG	CCTGACTGGT	GTTGCAATTA	TTTTGCTCGG	4200

TTCTCAAATC GGCTGTTTGG CATCTACTCT GAATCCATTT GCGACAGGTA TTGCTTCAGC	4260
GACTGCGGGA GTTGGTACAG GGGACGGTAT CGTACTTCGT CTGATCTTCT GGGTTACCTT	4320
GACTGCTCTT ACTACTTGGT TTGTTTACCG TTATGCCGAT AAGATTCAAA AAGATCCGAC	4380
TAAGTCACTG GTTTATAGTA CTCGCAAAGA AGATTTGAAA CACTTTAACG TAGAAGAATC	4440
TTCATCTGTA GAATCTACAC TTAGCAGCAA AAAAAATCA GTTCTCTTCT TATTTGTGTT	4500
GACATTCATC TTGATGGTAT TGAGCTTCAT TCCATGGACA GACCTTGGCG TTACCATTTT	4560
TGATGACTTT AATACTTGGT TGAAGGTCT TCCAGTTATT GGTAAATATTG TCGGTTTCATC	4620
TACTTCTGCA CTAGGTAATT GGTACTTCCC AGAAGGCGCA ATGCTCTTTG CCTTTATGGG	4680
TATCCTGATT GGTGTTATTT ATGGTCTTAA AGAAGATAAG ATTATCTCTT CCTTCATGAA	4740
TGGTGCTGCT GACTTGCTCA GTGTTGCCTT GATCGTAGCG ATTGCTCGTG GTATTCAAGT	4800
TATCATGAAC GACGGTATGA TTACCGATAC AATCCTCAAC TGGGGTAAAG AAGGCTTGAG	4860
CGGTCTATCT TCACAAGTCT TTATCGTTGT AACTTATATC TTCTATCTAC CTATGTCATT	4920
CTTGATCCCA TCTTCATCTG GTCTTGCCAG CGCAACTATG GGTATCATGG CTCCACTTGG	4980
AGAATTTGTA AATGTCCGTC CTAGCTTGAT TATCACTGCT TACCAATCTG CTTCAGGTGT	5040
CTTGAACTTG ATTGCACCAA CATCTGGTAT TGTGATGGGA GCTCTTGAC TTGGACGTAT	5100
CAACATTGGT ACTTGGTGGA AATTCATGGG CAAACTCGTA GTCGCTATTA TTGTAGTGAC	5160
CATCGCCCTT CTTCTCCTTG GAACCTTCCT TCCATTCTTA TAAATAGTG ACTGAGGTGA	5220
TTCCATGAAA ATAGATATAA CAAATCAAGT TAAAGATGAA TTTCTTATAT CATTAAAAAC	5280
CTTGATTTC TATCCTTCAG TACTCAATGA AGGAGAAAAT GGAACACCTT TTGGACAAGC	5340
AATCCAAGAT GTCCTAGAAA AAACCTTAGA GATTTGTGCG GACATAGGTT TCACTACCTA	5400
TCTTGACCCCT AAAGGTTATT ACGGATATGC AGAAATCGGT CAGGGAGCAG AGCTTCTGCC	5460
CATTCTCTGT CATTTGGATG TTGTTCCATC AGGTGATGAA GCAGATTGGC AGACACCGCC	5520
ATTGGAAGCA ACTATCAAAG ACGGCTGGGT ATTCCGACGT GGTGTCCAAG ATGATAAAGG	5580
CCCTTCGCTC GCAGCTCTCT ATGCAGTAAA AAGCTTGCTG GACCAAGGTA TTCAGTTCAA	5640
AAAGCGCGTA CGCTTTATCT TTGGTACCGA TGAGGAAACC CTCTGGCGCT GCATGGCACC	5700
CTACAATACC ATCGAAGAAC AGGCCAGTAT GGGCTTTGCA CCTGACTCAT CTTTTCTCTT	5760
GACCTATGCT GAAAAAGGGC TTCTACAGGT CAAACTTCAT GGCCCTGGAT CGGATCAACT	5820
AGAGCTTGAA GTAGGAGGCG CCTTTAACGT TGTACCAGAC AAGGCCAACT ACCAAGGTCT	5880
CCTCTATGAA CAGGTTTGTA ACGGTCTCAA AGAAGCTGGT TATGATTACC AAACCACTGA	5940

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ACAAACCGTA	ACGGTTCTCG	GAGTGCCAAA	GCATGCTAAG	GATGCTAGTC	AAGGTATCAA	6000
TGCTGTCATC	CGACTAGCTA	CCATTCTTGC	TCCTCTCCAA	GAACACCCTG	CTCTCAGTTT	6060
TCTTGCAACA	CAAGCAGGTC	AAGACGGCAC	AGGAAGACAA	ATCTTTGGTG	ATATAGCAGA	6120
TGAACCTTCT	GGTCACCTAT	CCTTTAATGT	CGCAGGTCTC	ATGATCAATC	ATGAACGTTT	6180
TGAAATCCGT	ATTGACATTC	GGACTCCTGT	CTTAGCTGAC	AAGGAAGAAC	TAGTAGAGTT	6240
GCTTACAAGA	TGTGCACAAA	ACTACCAACT	CCGCTACGAA	GAGTTTGACT	ATCTAGCGCC	6300
TCTATACGTC	GCAGAAGACA	GTAAACTCGT	TAGCACACTG	ATGCAAAATCT	ACCAAGAAAA	6360
GACTGGCGAT	AACAGTCCTG	CTATTTTCATC	CGGTGGTGCC	ACTTTTGCTC	GCACCATGCC	6420
AAATGTGTGA	GCCTTCGGCG	CCTTATTCCC	AGGAGCGAAG	CAGACAGAAC	ATCAGGCAAA	6480
TGAATGTGCC	GTTCTAGAAG	ATTTGTACCG	TGCTATGGAT	ATTTATGCCG	AAGCCGTCTA	6540
TCGACTTGCA	ACTTAATCAG	GCAACTGTTT	CTACCAAAAA	AAATCGACCG	ATTAATGAAC	6600
TGCACCCCAA	AAGTTAGACA	GAATAAATCT	AACTTTGGG	GTGTTTTATT	ATGAAATTGA	6660
GTTATGAAGA	TAAAGTTCAG	ATCTATGAAC	TAAGAAAGCA	AGGACAAAGC	TTCAAACAGC	6720
TTTCAAAAAG	ATTGGGTGTG	GATGTTTCTG	GTCTAAAGTC	ATCTGAATCT	TTGAGATGAG	6780
CTTTATAAAT	CGCTTTTTTC	AGTTTTTGCA	CTGGTGTTTC	GATAAACTCA	AACTTTTTAG	6840
CCGTGGTATT	GCCTGATTTT	ATAGTATATT	GAAACTAGAA	TAGTACACCT	CTCCTTCTAA	6900
AACATTTTTA	GAAATCGATT	TGACTGTCCT	GATCGATTTG	TCCTGTTCTT	ATTTCATTTT	6960
ACTATATTTG	AGCCACTTCG	TCTTTAACGG	CTTTATTCAT	AAGCTCTTGT	AATTTTTCTT	7020
TACTATCAAT	TACTTCTGAT	TTTCCGTTGT	AATTTATTGT	AATAGGTTTT	AACCTACCTA	7080
ATTTCTCGAC	ACGCTCATTA	ATTTGATCTT	TTTTGAAGGC	TGCTTATGTT	TTTCCTAAGA	7140
TTTTTTCAAA	AATATATTTA	TCAGATAGCG	GTTTGTCTTC	TTCTTCAGCT	TGGTTTTTGT	7200
ATTAATTGTA	AACATAAGGA	ACAAATCCTT	CATAGTAACC	TAATGCTCCC	ATAAGTTCAA	7260
AAGCTTGTTT	TCTAATTCAA	ACCATTGCAA	CTCAGATTTT	AGCTTTTCAG	ATAAATCCTG	7320
CTCATCCAAA	TAATGACTTG	AAATTAGTGC	TGAACTCGTT	TCTGTATCCT	GTACAGGCTG	7380
AGCACCCATA	CCAGCAAAAA	ATAAACTCGT	TCCTAGCAAG	ACCGAACAAG	CTCCTATTGC	7440
ATATGGCCTC	AAAGAAAAAC	GCTGCTTTCT	CTCAAATTGA	AATTCCTTCA	TCCCATCTCC	7500
CATCATTCAT	TATTACTGTA	TATTTTGTAT	ATCAGAAATA	GTTTGTATTC	ACAAATCTTT	7560
CTAGTTATTC	CCTTATCATT	CCTAATTAAG	GGAGATAACA	TACAATAATT	TTTAGTTAAA	7620
TGTATATCGA	TGTTTTTGT	TTTTCTTAAT	AAACGCAATA	CAAAAAGAGC	CTGTTACCAA	7680
GCTCTTTGTA	CTCAATGAAA	ATCAAAGAGC	AAATTAGGAA	ACTAGCCACA	GGTTGCTCAA	7740

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AACACCGTTT TGAGGTTGCA GATAGAACTG ACGAAGTCAG CTCAAAACAC TGTTTTGAGG	7800
TTGCAGATAG AACTGACGAA GTCAGTAACA TCTATACGGC AAGGCGACGC TGACGTGGTT	7860
TGAAGAGATT TTCGAAGAGT ATTAGTCTAT TATTTCTTCT CAGCGCGAAG GGCTGACAAG	7920
ATTTGTGTTT GGATATCATC CACACCATTG GGAGTATTTG GTAAAAAGAT AGTTTGATTT	7980
CCTTAGAGG CAAAGGTATT CAAGGTATCC AAATACTGGT TGGTCAAGAG GATAGACATG	8040
ATTTGTCTTT CTGTCATGCC AACATTGGCT TCCTTGAGTT CGGTGATAGA CTCTGCCAAT	8100
CCATCCACAA TCGCCTTACG TTGTTGGGCA ATCCCCACAC CATGAAGGCG GTCTTTTCT	8160
GCTTCTGCTT CAGCTGCAGT GACAATTTTA ATCTTGTCAG CTTCCGCCAA TTCTTGCTGCT	8220
GCGACCCGCT TACGTTGCGC CGCATTGATT TCATTCATGG ATTGCTTAAC TTCTGCATCT	8280
GGTTCGACCT TGGTAATCAA GGTTTTCACG ATAATGTAGC CGTAAGTGGT CATTTCTTCT	8340
GCTACTTGGT GTTGAACCTC AAGGGCAATC TCATCTTTT TCTCAAACAA TTCATCCAAG	8400
GTAAATTTTG GAACAGAAGA GCGAAGAGCA TCTTCGATAT AAGATTTAAT CTGAGATTCT	8460
GGACGTATGA GTTTATAGTA AGCATCTGTC ACGCTCTGCT CGTTGACACG GTAATGAGTC	8520
GCTACATTCA TCATAACGAA CACATTGTCC TTGGTCTTAG TCTCAACCAC AATATCACTT	8580
TGCAACAAGC GCAACTGAAT CCGTGCTGCA ATCGAGTCAA TCCCAAAAGG CAAGCGAATA	8640
TGAATACCGC TATTAGCAAC CTTTGGGTAT TTCCCAAAGC GTTCAATAAT CGCCACCGAC	8700
TGCTGACGAA CCACATAAAC TGTACTCAGT GTGACTATCA CCAATAGGAG CACACAAACA	8760
ATCAGAAAAA TCATGAAAAA TATTGCCATA ATGGAACCTC CACAAGTATT TTTCTAGTAT	8820
TATAGCACAT TTAAAGAAGG CTGTGCCGTT TTTACTGCGA TTTTCCTGA AATGTCAATA	8880
ATTAGAGGTG AATTGTCCTA TTGTCGTCCA ATCTCTTGCT AAAATAACTC TTTATAAAAG	8940
GCAATCGTTT CTTCTAAGGT TGGCATAAAT GGATTTCCTG GTGCGCAGGC ATCAATCAAG	9000
GCATTCTTAG AAAGGTATTC AAAGTCGAAA TCTTTTCTT CAATACCAAG TTCAGTCAGT	9060
TTCTTAGGAA TACCTACTGT CTCAGAAAGC TTCTCAATCT CAGCAATCGC ATAATCGGCA	9120
CATTCTTGAT CTGATTACC TTCTACATGA AGTCCCAAGG CTTTGGCAAC ATTGCGGAAA	9180
GCTTCTGGTA CACGTTTAGC ATTTTCACGT TCTATAACTG GTAGCAACAT GGCACAGCAC	9240
ACGG	9244

(2) INFORMATION FOR SEQ ID NO: 69:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 8898 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double

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(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 69:

GATCTGAACT TTATCATCAT AACTTAATTT CATAATAAAA ACACCCCAA AGTTAGATTT	60
TTTCTGTCTA ACTTTTGGGG TGTAGTTCAG TCATTGGACT GACGTTTTTT TGTATGCTTA	120
TTTTGATTTG ATGTAGTTGA TACCATCTGC TTTTGGTGCG ACTGCTTTTC CAAAGAAGGC	180
TGCTAAGACA AGAATTGTCA AAACATAAGG TGCAATTTGA AGATAAACCG CTGGCACTCC	240
TTGTAGGAAC GGCAATTGAG AACCGATAAC AGCCAACTT TGTGAAAGTC CAAAGAAGAG	300
ACTAGAAAGC ATAGCACCGA TTGGATTCCA TTTCCCAAAG ATCATCGCAG CAAGGGCGAT	360
AAATCCAGGT CCAACAATAG TTGTCCTGA GAAGTAACT GAGATTGATT GCGCATAAAT	420
CGCTCCGCCA ATTCCACCTA GAAAACCTGA AATAATAACC CCTAAATATC TCATCTTGTA	480
GACGTTGATT CCCAAGGTAT CCGCTGCTTG AGGATGTTCA CCGACAGAGC GGAGACGAAG	540
ACCAAATTGA GTCTTAAAGA GAATAAACCA AGCAAGGAAT GAGAAGGCAA TCGCCAGATA	600
ACCAAGTAGA CTAGTTGACT TGAAGAAGAT ATCACCAATC ACTGGGATAT TTGCCAAGAC	660
TGGGAAATCA AAGCGTCCAA AAGTTTGA CT TAGGTTGTCT GTTTGTCTT TGTATATAAG	720
AACTTTAACT AAGAAAACAG CCAAGGCAGG CGCCATCAAG TTCAATACCG TACCGCTGAC	780
AACATGGTCT GCACGGAAAT GAACCGTCCG TGCTGCGTGG ATGATAGAGA AAACACTACC	840
AACCAATCCT GCTACAAGCA AGGATAGCCA TGGAGTTGCT GCTCCAAAT GTTCTGCAAA	900
TTCAAGGTTA AAGACAAC TC CAGAAAAGGC ACCCATAACC ATAATTCCTT CAAGGCCAAC	960
GTTTACCACA CCACCACGT CAGAGAAAAC ACCACCGATA CTTGTAAAGA TGAGAGGTGC	1020
TGAGTAAATC AGCATAGAAG ACACCAAGAG GGGGAGCAAG GTTATAATAG ACATCTTTAC	1080
TTACCTCCTT TAAC TTGTTT TTTCCGTTTG ACAAAGCGTT CGATAAGGTA ATGAACACTG	1140
ACAAAGAAGA TAATAGACGC TGTTACAATG CTGACAAGCT CAGATGGTAC CTGCGCCGCA	1200
TTCATACCAG GAGCCCCAAC TTGGAGAACG CCAAATAGGA AGGCTGCAAA GAGTATACCA	1260
ATTGGTGAGT TGGCCGCAAG CAAACTAACC GCCATTCCGT TAAATCCGAT AGCTAATGAC	1320
GAACCTTGAA CATAGACGTT CTGGAAGGTT CCCAAACCTT CAACAGCTCC ACCAAGACCT	1380
GCCAAGGCAC CTGAAATAAT CATAGATAGG ATAATAGTCC GCTTGGCAGA AATACCAGCA	1440
TATTCTGAAG CATGTGGATT AAGACCAACT GCACGGATTT CAAAACCAAG AGTTGTTTTT	1500
TTGAGCATGA ACCAAATAAC TGCAACGGCA ATGATGGCAA AGAAAATACC AATATTCATC	1560
CGTGAGTTAC CAGTCAACTC AGCCAACCAA GGTGTCTGAT AGGTTGCATT AGCCCCAACA	1620

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CGAATGGTCG AATCTGTACT TTGCATGAAG TCTTTAGGGA AAGCATGGAT AAAGGCATTC	1680
CCTACATACA AGACAATGTA GTTCATCATG ATGGTTACAA TAACCTCTGA CGTCCCTAGA	1740
TAGGCCCTAA GAATACCTGG AATCGCTCCG ACAATCCCAC CAGCAATCAA GGCAATCACG	1800
ATGGTTGCTA GAATCATCAA GGGACGGGGC ATATCTGGAT GCGACAGGGC AAACCAACCA	1860
CTGAGAATCC AACCTGCCAA AGCCTGACCA GGAAGTCCGA CGTTAAAGAA ACCAGCTCGA	1920
CTGGCAACGG CAAAACCAAG ACCAATCAAG ACCAGAGGAC CCATAGCACG GAAGATTTCT	1980
CCAATCCCAC GCAGACTGCC AAAGGCTGTA TAGAACAATT CTTCTAGGCC CCAAATAGCA	2040
TCATAACCGA AGATCCACAT GACAATGGCT CCGAGTAAAA TTCCTAGGAA TACAGAAATC	2100
AAGGGAACCG AAATTTGTTG TAATTTTTTA GACATCACTC TTCTCCTTTC CCAAGTTTCC	2160
ACCAGCCATC AAGACACCAA GTTCTTGTTT ATTGGTTGTT TCTGGTGATA CAATACCTTG	2220
AATCTTACCA TCGTGGATAA CGGCAATACG GTCTGAGACG TTTAAAATCT CATCCAATTC	2280
AAAGCTGACA ACAAGGACAG CCTTGCCATT ATCACGCTCT TCAATCAAGC GTTGTGGAT	2340
ATACTCAATG GCACCGACAT CCAACCCACG AGTTGGCTGG CTAACGATAA GGAGATCAGG	2400
ATCTCGATCA ATTTACAGAG CAATAATTGC TTTTGTGTA TTCTCCTG AGAGTGCAGC	2460
TGCAGGAAC TATTCACTGG CAGCGGAAC ATCAAATCT TCCATCAGCT TTTAGCATA	2520
AGAAGTAATA TTTGAATAAT TCAAATTC ATTTTACTA TGTGGTTCTT TATAGTAGGT	2580
TTGAAGGGCA ATATTTTCAG ATATCATCAT TTCCAAAATC AAGCCATCAC GGTGACGGTC	2640
TTCTGGAACG TGCCCAACAC TTAGTTCTGT AATCTGACGT GGGTGCAAGC CTACAATTGA	2700
ATCTCCTTTT AGCTCAATGC TACCAGATTC AACCTTACGA AGACCTGTAA TGGCTTGAAT	2760
CAGTTCAGAC TGACCATTTT CATCAATCCC CGCAATACCA ACAATCTCTC CAGCACGAAC	2820
ATCCAAGGAC AGATTTTTAA CAGCTGGAAC ACCACGGTTT TCATTGACCA CCAAATCTTT	2880
GATAGACAAA ACCACTTCTT TTGGTTTAGA GGCTTGCTTC TCTGTTTTAA AGGAAACAGA	2940
ACGTCCTACC ATCATTTCCG CCAAATCAGC ATTGGTAGCC CCTGCAATTT CAACGGTTTC	3000
AATTGATTTT CCACGACGGA TAACTGTAAC ACGGTCAGAA ACTGCTCGAA TTTCATCCAA	3060
TTTGTGGGTA ATCAAGATAA TTGATTTTCC TTCTTTGACA AGATTTTTCA TAATAGCCAT	3120
CAACTCATCA ATTTCTGATG GAGTCAAAC AGCCGTTGGT TCGTCAAAGA TAAGGATATC	3180
AGCCCCCGA TAAAGTGTTT TTAAAATTC TACACGTTGT TGGGCTCCAA CTGAGATATC	3240
TGCTACCTTG GCAGAAGGGT CAACAGCTAA GCCATAACGT TCAGAAAGAG CCTTGATTTT	3300
TTTGCTAGCT CCAGCGATAT CTAGCACACC ATTTTATGTC AATCACTAC CTAAAATGAT	3360

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GTTTTTCAGCC ACTGTGAAGG CTTCAACCAA CATAAAGTGC TGGTGAACCA TCCCGATTCC	3420
CAAGCTAGCT GCTTTAGATG GGGAGTCGAG ATTGACAACT TGACCGTTGA CCGCGATTTT	3480
ACCACTAGTT GGTTCAGAA GGCCTGCTAA CATGTTTATT AGCGTGGACT TACCAGCCCC	3540
ATTTTCTCCT AAAAGTGCAT GAATTTTACC TTTTCGTAGG TGCAAGTTGA TTTTGTCTT	3600
GGCAACAAAT CCACCAAACA CCTTGGTAAT ATCACGCATC TCAATGACAT TTTTCGTGTG	3660
CATGTGCTCT TCCTTTCAGA GTCTTATTTT ATTTCAATAA AACTTGCTAG TTTGTCTAGT	3720
AGCAAGCTTT ACTTAGACAA AATGACTTTG TCTCAACTCT TAAAAAGCG GCCCTTGGCC	3780
GCTTCCTAAG AAATGACTTC CATCCATTAT TTTTCAGGAA CTTTACGCT TCCATCAAGG	3840
ATTTTAGCTT TTGCATCTTC GACAGCTTTT TTACCTTCTT CTGAAAGGTT TGTTACTGCC	3900
AAGTCAACCC CTTTATCCTT CAATGAGTAA ACGATCACTT GACCGCCAGG GAATTCTCCT	3960
CTTCTGCCT TGTTAGAAAT ATCTTTTACA GTTGTTACCA CTTGTTTCAA AGTAGATACA	4020
AGAACAAAGT TTGATTCTTT GCCATCTTTA GAAGTGATT TACCTTCTGC TTCTTGCTCA	4080
CGATCAACAC CGATAACCCA AACTTTTTTCA TTTTCAGGAC GGCTTTCGTT GAGAGATTTT	4140
GCCTCTGCAA AGACACCTGC ACCTGTACCA CCAGCTACTT GGTAAACAAT ATCTGCACCG	4200
GCTGCGTATT GTGCGGCTGC AATTGTTTTA CTTTTCAGCC CATCACCAA TGAACCAGCG	4260
TAGTCAACTT GGACTTTGAT AGATGGGTCT ACTGACGCAA CACCAGCCTT GAATCCTGCT	4320
TCAAAACGAG AGATAACTTC AGATTCGATA CCACCTACAA AACCAACTTG TTTGTCTTA	4380
GTTGTTTTTG CTGCAGCCAC ACCTGCAAGG TAACCTGACT CATTATCAGC GAAAGTTACG	4440
CTCGCAACAT TCTTTTGGTC TTTAATCACA TCATCAATCA AGACATAGTT CAAGTCAGTG	4500
TGTTCTTTTG CTGCATCTTT AACTGCATTA TTAAGGGCAA AACCAACACC GAAGATTAGG	4560
TTGTAACTTC CAGCCGCTTG TTGCAAGTTG TTAGCGTAGT CAGCTTCACT TGTGATTGG	4620
AAGTAAGTGA AACCCTTATC TTTTGAAAGA TTGTGTTCTT TACCCCAAGC CTGCAAACCT	4680
TCCCAAGCTG ATTGGTTGAA TGATTTGTCA TCAACACCAC CAGTATCAGT GACGATTGCT	4740
GCTTTTGTCT TCACATCAGA AGATGAAGCT GCGTTACGAG AAGAGCGGTT ACCACATGCA	4800
GCAAGTCCAA CTGCTGCCAC TGCAACTAGG CCAAGACCTA GCCATTGTTT CTTGTTTATT	4860
ACTGAACCTC CTAAATAAGA TGTGCAACGA TGTGCAAGT ATGGATTGGT TGGCCACAAG	4920
GACCGTGCCA CTCAGAGAGC GACTCAGACT AGTTTAAGTC TGTAAGAGAG TATGGAAGTA	4980
ATTCCCCGAC CGTCATCTCG ACCGTCGATT TATCTTTTGC GACTAAGGTC ACTTTTAGAT	5040
CTTGTTCAAA AAATTCAGCC ATCACTTGGC GACAAGCACC ACATGGCGAG ATCGGTTTTT	5100
CAGTTTGACC ATAGACAATC AATTCTGAAA ATTCTCTTTG GCCTTCAGAT ATAGCCTTAA	5160

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AAATAGCTGT TCTCTACCG CAATTGGTCA AAGGATAGCT AGCATTTTCA ATATTTACTC	5220
CCGTGTAAAC ACTTCCGTCT TTAGCTACTA AAAGTGTCTC GATAGGAAAG TGAGAATAGG	5280
GGACATAGGC ATGTTTGCTG GTTTCAATTG CCAGTTCAAT CAACTCAGTA GTCGCCATCT	5340
GCCAATTCTC CTTTAAAAAT AGCTACCCCA GCTGACGTTT CGATACGGGT CGCACCTGCT	5400
TCGACAAAGG CAAGAGCATC TGCATAAGAA CGAGCTCCAC CGGCGGCCTT GACACCCATA	5460
TCAGATCCAA CTGTTTCACG CATTAAATGTA ACATCTGCTA TCGTAGCACC ACCAGTTGAA	5520
AAGCCAGTAG ATGTTTGTAC AAAGTCAGCC CCAGCTTTTT GGGCCAATTG GCAAACAACA	5580
ACTTTTTCTT GGTCTGTCAG AAGGCAAGCT TCAATAATGA CTTTCACTAA CTTATCACCA	5640
CTTGCTTCCA CTAAGCGCG AATATCTGAC TCAACCAAGG CTAAATTACC TGATTGAGA	5700
GCTCCAACAT TGATCACCAT ATCAATCTCA TCTGCACCAT TTTGGATAGC TTCTTTTGTG	5760
TCAAATGCTT TCACGGCTGA AGTTGTTGCT CCCAAAGGGA AACCTACTAC TGTGCAAACC	5820
TTAACATCTG TGCCTTCAAG TCCTTTTTTA GCATGTTCAA CCCAGGTCGG ATTAACGCAA	5880
ACACTGGCAA AGTCATACTC TCTAGCCTCA GACAACAAAC TATCAATTTG TTTTTCTTT	5940
GCATCTTGT TTAAGAGCGT ATGATCTATA TATTTATTTA ATTTCAATTC GGTTTCCCT	6000
CCATTTAGGA GATGATTTCT ACAATTTTAC GGATTTTTTT CACTTCATCA CTTATTTTAA	6060
CACATTTTGT GAAATCTGTA ACTAGTTGAG GTGGAATTTT TTCATTTGTG TATACTTTTG	6120
CAACAATTTT ACCCTTTTGA ACCGAGTCTC CAATCTTCTT TTCAAAAACA ATTCCTGTTT	6180
CATAGTCCAA GGCATCAGAC TTAAGTGCAC GACCAGCACC CAGCCTCATG GCATAAGAC	6240
CAAAGTCCAT AGCTGGAAGA GCTGAAATGA CACCCGTTTC CTGAGCAGGG ATTCCACCA	6300
CATGAGCTAC ATTTACAGGA CGATAGAGGT CTTCCAAGTC TCCACCTTGG GCTTGACCA	6360
TTTCCTCAAA CTTAGCCAGT GCTTGACCAT TCTCAAGATG TTGGTGAAGT TCTTCAACAG	6420
TTTTGTAAAC ATTTGCCAAA CCAAGCATAA TTTGAGCCAA TTCACAAATA AAGTGGGTAA	6480
TATCCTGACG TCCTTGACCT TGCAAAATCT CCAATGCTTC AAGGATTTCC AGACGATTTT	6540
CAATCGCTCG TCCCAAAGGC TGGCTCATAT CCGTAATCAC TGCTACTGTC TTCCGTCCAA	6600
CAACCTTACC AAGATCTACC ATAGTTTGAG CCAACTCACG CGCCTCATCA ACCGTCTTCA	6660
TGAAGGCACC CTCACGACA GTCACGTCTA GCAAAATAGC ATCCGCCCCCT GCCGCAATTT	6720
TCTTGCTCAT CACCGAAGTC GCAATCAAAG GAATCGTGTC GACAGTTGCG GTCACATCAC	6780
GAAGGGCATA GAGAAGCTTA TCTGCTTTGA CCAGCTGGTC TGATTGCCCA ATGACAGATA	6840
CTCCAATATC CTGAACCTGA CGAATAAAAT CCTCTTGACT ACGTTCTACT TGATAGCCCT	6900

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TAATGGACTC	CAATTTATCA	ATTGTTCCGC	CTGTATGGCC	AAGACCACGA	CCACTCATT	6960
TTGCTACAGG	CACACCGAAG	CTAGCAACAA	GAGGAGCTAA	AATCAAGGTT	ACCTTATCGC	7020
CGACACCACC	AGTAGAATGC	TTGTCAACTT	TCACACCATC	AATGGCTGAC	AGGTCAAAC	7080
CTTGCCCAGT	CTTAACCATA	TTCATCGTTA	AATCAGAGAT	TTCTCGAGTC	GTCATTCTTT	7140
TAAAATAAAC	AGCCATAGCA	AAGGCAGACA	TCTGATAATC	AGGAACAGTT	CCTGATACAT	7200
AGCCTTCTAT	CAGCCATTCA	ATTTCACTTG	AAGTCAGTTC	TTGACCGTCT	CGTTTTTTTT	7260
GGATTAAATC	AACTGCTCTC	ATTCTTTTAC	ACTTCTAAGG	ATATAGTATC	CCTTGTCTTT	7320
TTTAAGGATT	TCACAATTGC	CAAACACATC	TTCCATCTTA	GACTTGGCAC	TTGGAGCTCC	7380
TTGTTTTTTC	TGGATGACGA	TGGTCAAATC	TCCACCAATT	TCCAAGAAAT	CTTTACTTTT	7440
CTCGATGATT	TCATGAACGA	CTTGCTTGCC	CGCACGGATA	GGAGGATTGG	AAATGACATG	7500
GTCAAATCGC	CCTTGAATC	TTGCATAAAT	ATTAGATTGA	AATATCGTCG	CTTTTGCATT	7560
ATTTTTTTCA	GCATTTCTCT	GAGCTAAATC	CAGGGCACGA	GTGTTAATAT	CAACCATGGT	7620
CGCCTGAACT	CCGTAAACCT	TGACCAAGGA	CAAACCTAAT	GGACCATAAC	CACAGCCTAC	7680
ATCTAGGACT	GTCTCTCCTT	GGTTGACATC	CAGACACTTG	AGCAAGAGTT	GACTTCCAAA	7740
GTCAACCATT	TTCTTGCTAA	AAACACCCGC	ATCTGTCAAA	AAAGTCATT	TTTCTCCCAA	7800
CAAGTCCACT	CTCAACTCAT	GAATGTCGTG	AGCAGCGTCA	GGATTTTCTG	CATAGTACAT	7860
TTTACTCATG	ACACTATTTT	ACCATAATTT	GACTCAAATT	GTAAATCCTT	TACAAATTGA	7920
TAATAAACG	AAAAAGACCG	AAGAAAGCAA	GTCACGAAGC	CATTTTCTTC	AATCTCTTTC	7980
AACACTTATA	AATAATAAAC	CATTTAGAAC	TATAAATATC	ACAGTCCAGA	TAAAAACAAA	8040
AAGTTTATCA	TCTATAATCA	GGCAGATTAT	TATTTCTATT	GCTTAACCTT	AAAATACTTT	8100
ATTATCAACA	AAATTCCTAA	CAAAATGTTT	AGATAAAAGC	CCAACTGATA	CGTTTATGTC	8160
AGGATTTCCA	AACTTGTTCA	AAGTCGTATC	AAATCTTCTA	GTGACATGTG	GAAGAAATAA	8220
CCCTCTGTCT	CAATCCGTAG	GACTAAAAAG	CAATAACTAC	CCGCAGCAAT	CCATTTCTGC	8280
CATCGTTTTT	TAGTAAGAAA	GCAATTAAGA	ACGAACAAAT	AAAGACAGCT	GTTACAATAG	8340
CATGTTCCAT	CAAAAAAGTA	AAACCGTAAT	AGGTTTCCAC	AAAGCATCTA	CCATTATCTG	8400
CATTGGTTCC	TTTTATAAAA	GGTAAAGCAA	AACTTAAAAT	AAAACAGAGT	TCCAATATGT	8460
AACGTTTTAA	GATTTTCATA	GTACACCTCC	TATAAGTTGT	GAATAAAAAA	GCCCCCTTTA	8520
TAAGCTTATA	AATCAGTAGA	ATCTATCTCC	TATTTTCATCA	ATAAATTGAT	CACTTATACT	8580
ATATACCATT	GACTTACCAC	ATTCAAGAAA	CCGCTTTATT	TTTTTAGCTT	TTTATGGTAT	8640
GATAGACAAA	ATATCTAGGG	GAAAAACAAAT	GACCAACGAA	TTTTTACATT	TTGAAAAAAT	8700

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CAGCCGCCAG ACTTGGCAAT CTTTACATCG AAAGACAACA CCTCCTTTGA CAGAAGAAGA 8760
ATTGGAATCT ATCAAGAGTT TTAATGACCA AATCAGTCTC CAAGACGTTA CAGATATCTA 8820
TCTCCCCTTG GTCATTTGA TTCAGATTTA CAAGCGAACT AAGGAAGATT TAGCCTTTTC 8880
AAAAGGAATT TTCCTCCA 8898

(2) INFORMATION FOR SEQ ID NO: 70:

(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 13188 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 70:

TATCTTAACG aGGATTGGGT TTATCGTCAG TCTTATTGCC CTAATTGTGG GAACAATCCC 60
TTAAATCATT TTGAAAATAA TCGGCCTGTA GCAGATTTTT ACTGTAATCA TTGTAGTGAG 120
GAGTTTGAAC TAAAGAGCAA AAAAGGAAAT TTTTCATCAA CAATCAATGA TGGTGCTTAT 180
GCAACGATGA TGAAGCGTGT GCAGGCAGAT AATAATCCTA ATTTCTTTTT TTAACTTAC 240
ACAAAAAATT TTGAGGTAAA TAACTTCTT GTCCTTCCGA AGCAATTTGT TACACCGAAA 300
TCGATTATTC AAAGAAAACC ACTTGCACCA ACTGCTAGAC GAGCAGGTTG GATTGGTTGT 360
AACATTGATT TATCACAAGT ACCTTCTAAA GGAAGGATAT TTCTTGTGCA AGATGGACAA 420
GTTAGAGATC CAGAAAAAGT TACAAAAGAA TTTAAGCAAG CTTTATTTTT AAGGAAGAGC 480
TCTCTGTCAT CAAGAGGTTG GACAATAGAA ATTCTAAATT GTATAGATAA GATAGAGGGT 540
TCAGAATTTA CCCTTGAAGA TATGTATCGT TTTGAAAGTG ACCTAAAAAA TATCTTTGTT 600
AAGAACAATC ATATCAAAGA AAAGATTAGG CAACAGCTTC AAATATTAAG AGACAAAGAA 660
ATAATAGAAT TTAAAGGTAG AGGAAAGTAT CGGAAATTAT GAAAACGAAA CAACTTGTG 720
CATCAGAAGA GGTGTATGAT TTCTTAAAAG TCATCTGGCC TGATTATGAA ACTGAAAGCC 780
GTTACGATAA CCTAAGTTTA ATCGTCTGTA CCTTATCAGA TCCCGATTGT GTGAGATGGT 840
TATCTGAAAA TATGAAATTT GGTGACGAAA AACAACTAGC TTTGATGAAG GAAAAATATG 900
GGTGGGAAGT AGGAGATAAA TTGCCAGAGT GGCTACATAG CTCCTATCAT AGATTATTGT 960
TAATAGGTGA ATTATTGGAA AGCAATCTAA AACTGAAAAA GTATACAGTA GAAATTACAG 1020
AAACTTTATC ACGTTTAGTA AGTATAGAGG CTGAAAATCC AGATGAAGCC GAACGACTTG 1080
TAAGAGAAAA GTATAAGAGT TGTGAAATTG TTCTTGATGC AGATGATTTT CAGGACTATG 1140

568

ACACTAGCAT ATATGAATAG GTAGATGTTT TTATTTTGTC AACAAAAAG AGGCTCGCAC	1200
CTCTTTTCT TATTTCTTTT TATGATTAA TACGGCATTG AGGACAATAG CGAGTAGGCT	1260
GGCTACGACG ATTCCGTTG AGAAGAACAT TTGGAAGGCT GTCGGCATGC TGACAAAGAG	1320
ATTACTGTTG TTGAGACCGA CACCTGCAGC GATTGAAACA GCTGCGATAA GGAAGTTGTG	1380
TTCATTGTTA GCAAAGTCAA CACGGGCGAG GATTTGCATC CCTTGAATTG ATACAAAACC	1440
AAACATTACC AGCATGGCAC CACCGAGGAC GGAGCTTGA ATGATTGGG CAAGGGCGCC	1500
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TTTTTTGATG CCTGACAATT TAACCAAACC AACGTTTTGT GAAAATCCGG TGTAAGGGAA	1620
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GCGCGTGCTG TCGATTGGAT CCTTTGTGAT ATCAGACAAG GCCAGATAAA CACCAGTTGA	1740
CTCAACCATA GACACCGTTG CGATGATACA CATCATGACA ATAGATGAGA TTTCAAAGGT	1800
TGGCATCCCA AAGTAGAGTG GAGTTGGGAC ATGGACAAGT GGAGCTACCG CAACAGGAGA	1860
GAAGTCCACC AAGCCCATAG TAGCAGCAAT GGCAGTTCCA ACAACCAGAC CAATCAAAAT	1920
AGAGATAGAC TTGATAAATC CTTTGGTAAA GATGTTGATC AAGAGGATAA TCAGAACAGT	1980
AATAGCTGCA AGCAAGAGAC TTTGACCAGT TGGCTCTGGA ACGTTATTTT CCATATTTCC	2040
AATAGCGACA GGGATCAAGG TTAAACCAAT CGTGGTAATA ACAGATCCTG TTACGATAGA	2100
TGGGAAGAGA TTGGCTACTT TTGAGAAGAT GCCTGAAACA AGAACCACGT AAATCCCAGA	2160
TGCGATAAGG GCACCAAACA TAGCGCCACT ACCATGGCTT TGCCCAATCA TAATCAAGGG	2220
AGCGACCGAC TGGAATGCAA CTCCAAGAAC GACTGGGAGT CCAATCCCAA AGTATTTGTT	2280
GAGTTGGAGT TGGAGGAAGG TTGCCACCCC ACACATGAAG ATATCTGTAG AAATCAGGTA	2340
GGTCAACTGC TCAGCTGAAT AGCCAAGGGC TGTCCGAATC ATGATGGGAA CCAGGATAGA	2400
TCCTGAGTAC ATGGCTAGTA AGTGCTGCAA GCCAAGAACG GCTGCTTGCG AGTGTPTTTC	2460
TTGAGTTTGC ATTAGAGATC TGCCTCCTTA AATACGACTT GACCATTTTC AAAACAATCC	2520
AAACGAGCAA GTGATAGGAC AGGGTAGCCT GCTTTTCAA GCAAATCACG ACCATCTTGG	2580
AAGGATTTCT CAATCAGGAT ACCGATAGCT TGGACTGTGG CACCGGCCTG TTCGATGATT	2640
TGAATCAAGC CTTTAGCAGC TTGGCCATTA GCAAGGAAAT CGTCGATAAT CAAAACCTTG	2700
TCCTCTGGTG AGAGGAATTT TTCAGCGATA GAAACGGTGC TGGTCACCTG CTTGGTAAAG	2760
GAGTAGACTT GAGCAGTTAA GATGCCTTCG TTCATGGTGA TGTTCTTAGC TTTTGTGGCG	2820
AAAATCATGG GAACGTTTAA GGCTTCAGCT GTAAAAACGG CTGGGGCAAT ACCCGACGCT	2880
TCAATGGTTA CGACCTTGGT AATGCCAGTA GTAGCAAATT TTTCCGAAA AACCTTACCA	2940

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ATCTCTCGCA TCAAGCTAAA GTCAACTTGG TGGGTAAAA AGGAATCTAC CTTGAGGATG	3000
TTATCACCCA AGATATGCCC ATCCTTGAGG ATGCGCTCTT CTAATAATTT CATAAGACCT	3060
CCTAAAGTCT AAAAGTTAAT TTAAGTTGTT TTTAAATATT TCTATAGTGA TCCCTTTTGC	3120
TAATACTATA TATTTGATAA AACTATTACG AGCGAAGCGA GTCTTATCAA ATATTTCCCG	3180
TTGTACTGGT ATCATAGACA ATAATCTTGT TATTGTCTAT GACGGGATTT TTGAGAGTAA	3240
AATAGTTCGG GGAAGTATTT TAGCCTAAGC CTAGAAATGA AAGAGCTAGG GGCTCAAAAA	3300
TTAGGGATGA AATTCCTTGG ATTCCTGAAA TTATTCACAG GATAATTTCA CCTCCCGTCC	3360
GCACTAATTA AGGGAAATAT TAAAAAAGA CCTACTTAAT CTCTAAGTAA GTCCCTTAAA	3420
TAGACATGGC AAAAACGGCC ATATCTCACT GCTGACTTAC TTATTGTTAG GTGTTCCGGC	3480
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TATGCCAAAG GAGAGATTGA CTCCACGACC AAAGGGATAG GTCAGTTCAG CTAGTTGATC	4140
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AGTCAATTTT CAAGACAATC GGTGTATGGT CTTGGCGAGC ACCTGAGTCA ATCATATCAG	4380
ATTTAGTGAC CTTGTCAGCG ATACGGTTAC TTGTGAGCCA GTAGTCGATT CTCCAGCCTG	4440
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CACGTTCCCTC GTCAGTAAAT CCAGGTGAAC GGCGGTTGCT AGCAGGATTT GCAAGGTCGA	4620
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CAGCCAAATA CTCAGCATAT TTGGCATCCC AGACTTGGCG TTCTTCCAAG CGTTTGAGAC 4740
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AAGTTAGAAA AACGCCGTTA TCTAGTCGGA ATTGTGGCCC TGATCTTGGT TTCCGTCCTC 6480

AATCTCATTC	CTCCTATGGT	TATGGGGCGG	GTCATTGATG	CCATCACATC	GGGGCAATTA	6540
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TATTTGCGCT	ATGTGTGGCG	TATGTATATC	CTTGGGACCT	CTTATTGCTT	GGGACAGATC	6660
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CGGACGGGTG	ATCTGATGGC	ACACGCAACC	AATGATATCA	ATGCCTTGAC	TCGTTTAGCA	6780
GGTGGCGGTG	TCATGTCTGC	GGTGGATGCC	TCTATCACGG	CTCTGGTGAC	TTTGTTGACC	6840
ATGCTCTTTA	GCATCTCATG	GCAGATGACT	CTTGTTGCCA	TTCTCCCCCT	ACCTTTCATG	6900
GCCTATACGA	CTAGTCGCCT	AGGGAGAAAG	ACTCATAAGG	CCTTTGGCGA	ATCCCAAGCT	6960
GCTTTTTTCTG	AACTCAATAA	CAAGGTACAG	GAGTCCGTAT	CAGGTATCAA	AGTGACCAAG	7020
TCTTTCGGTT	ATCAGGCAGA	CGAGTTGAAG	TCTTTTCAGG	CAGTCAATGA	ATTAACCTTC	7080
CAAAAGAACC	TGCAAACCAT	GAAATATGAT	AGTCTCTTTG	ACCCTATGGT	TCTCTTGTTT	7140
GTGGGTTCTG	CCTATGTTTT	AACGCTTTTG	GTGGGCTCCT	TGATGGTTCA	GGAAGGGCAG	7200
ATTACAGTTG	GGAATCTAGT	CACCTTTATC	AGCTATTTGG	ATATGCTGGT	CTGGCCTCTT	7260
CTGGCCATCG	GTTTCCTCTT	TAATACTACT	CAGCGAGGGA	AGGTTTCTTA	CCAGCGGATT	7320
GAAAATCTTT	TGTCTCAGGA	ATCTCCTGTA	CAAGACCCTG	AGTTTCCTCT	GGATGGTATT	7380
GAAAATGGGC	GTTTGAGTA	TGCCATTGAC	AGCTTTGCTT	TTGAAAATGA	GGAAACACTG	7440
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TCTGGGAAAA	CGTCCTTAAT	CAAGCTCCTC	TTGCGTGAAT	ACGATGTGGA	TAAGGGTGCC	7560
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GGCAATCCTA	ACTTGCCCCCT	TTCAGCGGTC	GAGGAAGCTA	CTAAGCTAGC	CCGGGTTTAC	7740
CAAGATATTG	TAGACATGCC	TCAAGGATTT	GATACGCTGA	TTGGTGAAAA	AGGAGTCACT	7800
CTTTCTGGTG	GTCAAAAGCA	ACGGTTGGCT	ATGAGTCGGG	CTATGATTTT	AGACCCCTGAT	7860
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GACAACCTCA	AGGAGATGCG	AAAGGACAAG	ACAACCATTA	TCACTGCCCA	TCGCCTCAGT	7980
GCTGTTGTCC	ATGCAGATTT	TATTTTAGTT	CTACAAAATG	GTCAAATTAT	CGAACGAGGC	8040
ACGCACGAAG	ACTTGCTAGC	TTTGGATGGC	TGGTATGCCC	AAACCTACCA	GTCTCAGCAG	8100
TTGGAAATGA	AAGGAGAAGA	AGATGCAGAA	TAAACAAGAA	CAATGGACTG	TATTGAAGCG	8160
CTTGATGTCT	TATCTCAAGC	CTTATGGACT	CCTGACCTTT	TTGGCACTCA	GTTTTCTCCT	8220

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AGCGACGACG	GTCATTAAAA	GTGTCATACC	CCTCGTGGCT	TCCCACCTTA	TCGACCAGTA	8280
TCTCAGCAAT	CTTAACCAAC	TAGCCGTTAC	CGTTTTGCTG	GTCTACTATG	GTCTCTACAT	8340
CCTACAAACT	GTAGTTCAGT	ATGTCGGCAA	TCTTCTCTTT	GCGCGCGTGT	CTTACAGTAT	8400
TGTTAGGGAT	ATTCGTCGGG	ATGCCCTTGC	CAATATGGAG	AAACTGGGCA	TGTCTTACTT	8460
TGACAAGACG	CCAGCAGGTT	CTATCGTTTC	TCGTTTGACC	AACGATACCG	AGACGATTAG	8520
TGATATGTTT	TCTGGGATTT	TATCCAGCTT	TATCTCAGCA	GTCTTTATCT	TTCTGACAAAC	8580
CCTTTATACC	ATGTTGGTGC	TGGATTTTCG	TTTGACGGCT	TTAGTCTTGC	TCTTCTTCC	8640
TTTGATTTTC	CTTTTGGTCA	ATCTCTATCG	AAAAAAGTCA	GTGAAAATCA	TCGAGAAAAC	8700
CAGAAGTCTC	TTGTCAGATA	TCAATAGTAA	GCTGGCAGAG	AATATCGAGG	GAATCAGGAT	8760
TATTCAGGCC	TTTAATCAAG	AGAAGCGCCT	GCAGGCAGAA	TTTGATGAAA	TCAACCAAGA	8820
ACACTTGGTC	TACGCCAACC	GTTCTGTAGC	CTTGGATGCC	CTCTTTTGA	GACCTGCCAT	8880
GAGTTTGCTG	AAACTTCTAG	GCTATGCAGT	CTTGATGGCC	TACTTTGGCT	ACCGTGGTTT	8940
TTCTATCGGG	ATAACGGTCC	GGACCATGTA	TGCCTTTATC	CAGTACATCA	ACCGCCTTTT	9000
TGACCCCTTG	ATTGAGGTGA	CGCAAACTT	TTCAACTCTG	CAAACGGCTA	TGGTTTCTGC	9060
AGGTCGTGTC	TTTGCCCTGA	TAGACGAGAG	GACCTATGAA	CCTCTTCAAG	AAAATGGGCA	9120
AGCCAAAGTC	CAAGAAGGCA	ATATCCGTTT	TGAACATGTG	TGTTTCTCAT	ATGACCGTAA	9180
ACATCCGATT	CTGGATGACA	TTTCTTTCTC	TGTTAATAAG	GGTGAAACCA	TTGCCCTTGT	9240
AGGTCATACA	GGTTCAGGGA	AATCGTCTAT	TATCAATGTC	CTCATGCGCT	TTTATGAATT	9300
CCAGTCAGGG	AGAGTTCTCT	TGGATGATGT	GGATATCAGG	GATTTTCAGTC	AAGAAGAGCT	9360
GAGAAAAAAC	ATCGGTTTGG	TCTTGCAGGA	ACCCCTCCTC	TATCATGGAA	CTATTAAGTC	9420
CAATATCGCC	ATGTACCAAG	AAACCAGTGA	TGAGCAGGTT	CAGGCTGCGG	CAGCCTTTGT	9480
GGATGCAGAT	TCCTTTATTC	AAGAACTTCC	TCAGGGGTAC	GACTCCCCTG	TTCCCGAGCG	9540
TGGTTCGAGC	TTCTCTACTG	GGCAACGCCA	GCTTCTTGCC	TTTGCTAGAA	CAGTCGCCAG	9600
CCAGCCTAAA	ATCCTGATTT	TGGATGAAGC	GACAGCCAAT	ATTGACTCTG	AAACAGAAAG	9660
CTTGTTTCAA	GCTTCTCTGG	CGAAGATGAG	ACAGGGCCGA	ACAACTATTG	CTATCGCTCA	9720
CCGCCTTTCT	ACTATTCAAG	ATGCCAACTG	CATCTATGTC	TTGGATAAGG	GACGCATTAT	9780
CGAGAGTGGA	ACCCATGAGG	AACTCTTGGC	TCTGGGAGGA	ACCTATCACA	AGATGTATAG	9840
TTTGCAAGCA	GGGGCCATGG	CCGATACTCT	TTGAAAATCT	CTTTAAACCA	TGTCAGCTTT	9900
ATCTGCAATC	TCAAAGCTGT	ACTTTGATTT	TCATTGAGTA	CTAGAAGGAA	ATCCTTCAAA	9960
TTACAGATTT	CTTTCACCGC	CTTTTCCATT	TTGTGGTATA	ATGAAAAATG	TTGACAAATA	10020

573

GTATAATAAA AACAAAGGAG AACAGCATGC TGAAATGGGA AGACTTGCCT GTGGAAATGA	10080
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TCAAGCGTTG CTTGGACTGG GTTTTGGCCT TGGTCTTACT GGTTCGACC TCTCCCATCT	10200
TTCTCATCTT GAGCATTTGG ATCAAGTTGG ATAGCAAAGG GCCAGTGATT TACAAGCAAG	10260
AGCGTGTGAC CCAGTACAAC CGTCGGTTCA AGATTTGGAA GTTTCGTACC ATGGTGACGG	10320
ATGCGGATAA AAAAGGAAGT CTGGTGAAGT CTGCTAACGA TAGCCGCATT ACCAAGGTTG	10380
GAAATTTTCT CCGACGTGTC CGTTTGGACG AACTGCCTCA GTTGGTCAAT GTCCTTAAAG	10440
GTGAGATGTC CTTTGTCCGT ACACGACCTG AAGTGCCACG TTATACAGAG CAGTATAGCC	10500
CTGAAATGAT GGCAACCTTG CTCTTGCAAG CAGGGATTAC CTCTCCAGCC AGCATCAACT	10560
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CATTTTCACC GCCTGATATC ACAGAAGCAG AAATTACTGA AGTAGTGGAT ACCCTCCGTT	10860
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GCGTTTTGGA AGTGGGACCT GGTGATGAAG TCATCGTTCC AGCCATGACC TATACGGCTT	11040
CATGTAGTGT CATTACGCAC GTGGGAGCAA CCCCTGTCAT GGTGGATATC CAAGCAGATA	11100
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TTGTCTCTGA TAGTGCCAC GCTTTGGGAT CTATTTATAA AGGACAACCT TCTGGTTCTA	11340
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AAATCCTTTC CCTTCACGGG CAAACTAAGG ATGCTCTTGC CAAGATGCAA CTGGGGTCAT	11520
GGGAATACGA TATCGTTACA CCAGCCTATA AGTGCAACAT GACCGATATC ATGGCTTCAC	11580
TTGGTTTGGT ACAATTGGAC CGCTATCCAA GTTTGTTGCA ACGCCGTAAG GACATTGTGG	11640
ACCGCTATGA TAGTGGTTTT GCAGGTTCTC GCATCCATCC TTTGGCACAC AAGACTGAAA	11700
CTGTGGAATC TTCACGCCAC CTCTACATCA CCCGTGTAGA AGGAGCAAGC CTAGAAGAAC	11760

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GCAACCTCAT CATCCAAGAA TTGGCTAAAG CAGGAATTGC AAGTAATGTT CACTACAAAC 11820
 CGCTTCCTCT CTTGACAGCC TATAAGAATC TTGGATTGTA TATGACGAAC TATCCTAAGG 11880
 CCTATGCCTT CTTTGAGAAT GAAATTACCC TCCCTCTTCA TACTAAATTA AGCGATGAAG 11940
 AAGTAGACTA TATCATTGAG ACTTTCAAAA CAGTTTCTGA AAAAGTGCTA ACTTTATCAA 12000
 AAAAAAGACA AACTACAGTC AAGCGAAAGT GATCCTGCCC CTAAAAAGTC TAATTGAGTG 12060
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 CAGAGAGAGA ATTTTATAG GATTTTCCTT TCTTGTGGGA GTCCCGTGGT TTGAAATAAG 12180
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 TTAAAAATAG TAAAAAATT GGAGGTTCTG ATGAAATATT TTGTTCCG 13188

(2) INFORMATION FOR SEQ ID NO: 71:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 32768 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: double
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 71:

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AACGAGTGCA TCAGTCTCAG CAAGCACCAG TGGCTCGGCC TCAGCAAGCA CCAGCGCGTC	60
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AACAAGTGCA TCGGCTTCAG CAAGCACAAG TGCTTCAGCC TCAGCAAGTA TCTCAGCGTC	180
TGAATCGGCA TCAACGAGTG CGTCCGCTTC AGCAAGTACT AGCGCCTCAG CATCAGCGTC	240
AACAAGTGCT TCGGCTTCAG CGTCAACGAG TGGCTCTGAG TCAGCATCAA CGAGTACGTC	300
AGCCTCAGCA AGCACATCAG CTTCTGAATC TGCATCAACC AGTGCGTCAG CCTCAGCATC	360
GACAAGCGCC TCAGCTTCAG CAAGTACCAG TGGCTCAGCC TCAGCAAGTA CCAGTGCTTC	420
AGCCTCAGCG TCGACAAGTG CGTCGGCCTC AACCAGTGCA TCTGAATCGG CATCAACCAG	480
TGGCTCAGCC TCAGCAAGTA CTAGCGCCTC AGCCTCAGCA TCAACGAGTG CGTCCGCTTC	540
AGCAAGTACT AGTGCATCAG CATCAGCATC AACGAGTGCA TCGGCTTCAG CAAGTACCAG	600
CGCCTCAGCT TCAGCAAGCA CCAGTGCGTC AGCCTCAGCA AGTACCAGCG CCTCAGCCTC	660
AGCAAGCACC AGTGCCCTCAG CTTAGCAAG TACCAGTGCG TCAGCCTCAG CGTCGACAAG	720
TGGCTCGGCT TCAGCAAGTA CCTCAGCGTC TGAATCAGCA TCAACGAGTG CATCAGCTTC	780
AGCATCAACA AGTGCTTCAG CTTAGCAAG TATCTCAGCG TCTGAATCGG CATCAACGAG	840
TGGTCCGCT TCAGCAAGTA CTAGCGCCTC AGCATCAGCG TCAACAAGTG CTTCCGCTTC	900
AGCGTCAACG AGTGCGTCTG AGTCAGCATC AACGAGTACG TCAGCCTCAG CAAGCACATC	960
AGCTTCTGAA TCTGCATCAA CCAGTGCGTC AGCCTCAGCA TCGACAAGCG CCTCAGCTTC	1020
AGCAAGTACC AGTGCGTCAG CCTCAGCAAG TACCAGTGCT TCAGCCTCAG CGTCGACAAG	1080
TGGCTCGGCC TCAACCAGTG CATCTGAATC GGCATCAACC AGTGCGTCAG CCTCAGCAAG	1140
TACTAGCGCC TCAGCCTCAG CATCAACGAG TGGTCCGCT TCAGCAAGTA CTAGTGCATC	1200
AGCATCAGCA TCAACGAGTG CATCGGCTTC AGCAAGTACC AGCGCCTCAG CTTAGCAAG	1260
CACCAGTGCG TCAGCTCAG CAAGTACCAG CGCCTCAGCC TCAGCAAGCA CCAGTGCCTC	1320
AGCTTCAGCA AGTACCAGTG CGTCAGCCTC AGCGTCGACA AGTGCGTCGG CTTAGCAAG	1380
TACCTCAGCG TCTGAATCAG CATCAACGAG TGCATCAGCT TCAGCATCAA CAAGTGCTTC	1440
AGCTTCAGCA AGTACCAGTG CGTCGGCTTC AGCATCAACG AGTGCTTCAG TCTCAGCGTC	1500
AACCAGTGCC TCTGAATCAG CATCAACAAG TGCTCGGCT TCAGCAAGCA CCAGTGCGTC	1560
GGCTTCAGCA AGTACTAGTG CATCGGCTTC AGCATCGACA AGTGCGTCTG AATCGGCATC	1620
AACGAGTGCT TCGGCTTCAG CATCAACGAG TGGCTCAGCC TCAGCAAGCA CATCAGCTTC	1680
TGAATCTGCA TCAACCAGTG CGTCCGCTTC AGCGTCAACC AGTGCGTCGG CTTAGCGTC	1740

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GACAAGTGCT	TCGGCTTCAG	CATCAACGAG	TGCGTCGGCC	TCAGCAAGCG	CAAGTACCTC	1800
AGCGTCAGct	TCCGCCTCAA	CCAGTGCGTC	GGCTTCAGCA	AGCACAAGTG	CGTCAGCCTC	1860
AGCAAGTATC	TCAGCGTCTG	AATCGGCATC	AACGAGTGCG	TCTGAGTCAG	CATCAACGAG	1920
TACGTCAGCC	TCAGCAAGCA	CATCAGCTTC	TGAATCTGCA	TCAACCAGTG	CGTCAGCCTC	1980
AGCATCGACA	AGCGCCTCAG	CTTCAGCAAG	TACCAGTGCT	TCAGCCTCAG	CGTCGACAAG	2040
TGCGTCGGCC	TCAACCAGTG	CATCTGAATC	GGCATCAACC	AGTGCGTCAG	CCTCAGCAAG	2100
TACTAGTGCA	TCAGCTTCAG	CATCAACGAG	TGCATCGGCT	TCAGCATCAA	CCAGTGCCCTC	2160
GGCTTCAGCG	TCAACCAGTG	CGTCAGCTTC	AGCAAGTACC	AGTGCTTCAG	TCTCAGCATC	2220
AACAAGTGCT	TCAGCCTCAG	CATCGACAAG	TGCCTCGGCT	TCAGCAAGCA	CATCAGCATC	2280
TGAATCAGCG	TCAACCAGTG	CTTCGGCTTC	AGCAAGTACC	AGTGCTTCAG	CTTCAGCATC	2340
AACCAGCGCC	TCGGCCTCAG	CAAGCACCTC	AGCTTCTGAA	TCGGCCTCAA	CCAGCGCCTC	2400
GGCCTCAGCA	AGCACCTCAG	CTTCTGAATC	GGCCTCAACC	AGCGCCTCAG	CCTCAGCATC	2460
AACGAGTGCT	TCGGCTTCAG	CAAGCACAAG	CGCCTCGGGT	TCAGCATCAA	CGAGTACGTC	2520
AGCTTCAGCG	TCAACCAGTG	CTTCAGCCTC	AGCATCAACA	AGTGCGTCAG	CCTCAGCAAG	2580
TATCTCAGCG	TCTGAATCGG	CATCAACGAG	TGCGTCTGAG	TCAGCATCAA	CGAGTACGTC	2640
AGCCTCAGCA	AGCACCTCAG	CTTCTGAATC	GGCCTCAACC	AGTGCGTCAG	CCTCAGCATC	2700
GACAAGCGCC	TCAGCTTCAG	CAAGTACCAG	TGCTTCAGCC	TCAGCGTCGA	CAAGTGCGTC	2760
GGCCTCAACC	AGTGCACTCTG	AATCGGCATC	AACCAGTGCG	TCAGCCTCAG	CAAGTACTAG	2820
TGCATCGGCT	TCAGCATCAA	CCAGTGCCCTC	GGCTTCAGCG	TCAACCAGTG	CGTCAGCTTC	2880
AGCAAGTACC	AGTGCTTCAG	TCTCAGCATC	AACAAGTGCT	TCAGCCTCAG	CATCGACAAG	2940
TGCCTCGGCT	TCAGCAAGCA	CATCAGCATC	TGAATCAGCG	TCGACAAGCG	CCTCAGCTTC	3000
AGCAAGTACC	AGTGCGTCAG	CCTCAGCGTC	GACAAGTGCG	TCAGCCTCAG	CAAGTACTAG	3060
TGCATCAGCT	TCAGCATCAA	CGAGTGCAATC	GGCTTCGGCG	TCAACCAGTG	CATCAGAGTC	3120
AGCAAGTACC	AGTGCGTCag	CTTCGGCATC	AACAAGTGCC	TCGGCTTCAG	CAAGCACCCAG	3180
TGCGTCGGCT	TCAGCAAGTA	CTAGCGCCTC	AGCCTCAGCC	TCAACCAGTG	CGTCAGCCTC	3240
AGCAAGTATC	TCAGCGTCTG	AATCGGCATC	AACGAGTGCG	TCCGCTTCAG	CAAGTACTAG	3300
CGCCTCAGCC	TCAGCGTCAA	CAAGTGCAATC	GGCTTCAGCG	TCAACGAGTG	CGTCTGAATC	3360
GGCATCAACG	AGTGCGTCCG	CTTCAGCAAG	TACTAGCGCC	TCAGCCTCAG	CGTCAACAAG	3420
TGCATCGGCT	TCAGCATCAA	CGAGTGCGTC	CGCTTCAGCA	AGTACTAGCG	CCTCAGCCTC	3480
AGCGTCAACA	AGTGCAATCGG	CTTCAGCGTC	AACGAGTGCG	TCTGAGTCAG	CATCAACGAG	3540

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TGCGTCAGCC TCAGCAAGCA CATCAGCTTC TGAATCTGCA TCAACCAGTG CGTCAGCCTC	3600
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TGCGTCGGCT TCAGCAAGTA CCAGTGCGTC AGCCTCAGCA AGTACCAGTG CGTCAGCCTC	3720
AGCGTCGACA AGTGCGTCGG CCTCAACCAG TGCATCTGAA TCGGCATCAA CCAGTGCGTC	3780
AGCCTCAGCA AGTACTAGTG CATCAGCTTC AGCATCAACG AGTGCATCGG CTTAGCATC	3840
AACCAGTGCA TCAGAGTCAG CAAGTACCAG TGCGTCAGCT TCCGCATCAA CAAGTGCCTC	3900
GGCTTCAGCA AGTACTAGCG CCTCAGCCTC AGCGTCAACA AGTGCTTCAG CTTCCGCGTC	3960
AACCAGCGCC TCGGCCTCAG CAAGTATCTC AGCGTCTGAA TCGGCATCAA CAAGTGCCTC	4020
GGCTTCAGCA TCAACGAGTG CATCAGTCTC AGCAAGCACC AGTGCGTCGG CCTCAGCAAG	4080
CACCAGCGCG TCTGAATCCG CATCAACCAG TGCCTCAGCT TCAGCAAGTA CCTCAGCATC	4140
TGAATCAGCA TCAACAAGTG CCTCGGCTTC AGCAAGCACA AGTGCTTCAG CCTCAGCAAG	4200
TATCTCAGCG TCTGAATCGG CATCAACGAG TCGTCCGCT TCAGCAAGTA CTAGCGCCTC	4260
AGCATCAGCG TCAACAAGTG CTTCCGCTTC AGCGTCAACG AGTGCGTCTG AGTCAGCATC	4320
AACGAGTACG TCAGCCTCAG CAAGCACATC AGCTTCTGAA TCTGCATCAA CCAGTGCGTC	4380
AGCCTCAGCA TCGACAAGCG CCTCAGCTTC AGCAAGTACC AGTGCGTCAG CCTCAGCAAG	4440
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GGCATCAACC AGTGCGTCAG CCTCAGCAAG TACTAGCGCC TCAGCCTCAG CATCAACGAG	4560
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TGCGTCTGAG TCAGCATCAA CGAGTGCGTC AGCCTCAGCA AGCACATCAG CTTCTGAATC	4980
TGCATCAACC AGTGCGTCAG CTTCCGCATC AACAAAGCGCC TCGGCCTCAG CAAGTACAAG	5040
TGCTTCAGCC TCAGCATCAA CCAGTGATC AGCTTCAGCC TCAACAAGTG CTTAGCCTC	5100
AGCGTCAACC AGTGCTCGG CTTAGCAAG TACCAGTGCG TCAGCTTCAG CAAGCACAAG	5160
TGCGTCAGCT TCAGCATCAA CCAGTGCTTC GGCTTCGGCA TCAACAAGTG CCTCAGCATC	5220
AGCATCAACG AGTGCGTCAG CCTCAGCAAG TACTAGTGCA TCAGCATCAG CATCAACCAG	5280

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TGCATCAGCC	TCAGCAAGTA	TCTCAGCGTC	TGAATCGGCA	TCAACGAGTG	CATCAGCATC	5340
AGCATCAACG	AGTGCATCGG	CTTCAGCGTC	AACCACTGCA	TCAGTCTCAG	CAAGCACCAG	5400
TGCGTCGGCT	TCAGCATCAA	CGAGTGCCTC	AGCCTCAGCA	AGTATCTCAG	CGTCTGAATC	5460
GGCATCAACG	AGTGCCTCAG	CCTCAGCAAG	TACTAGTGCA	TCGGCTTCAG	CAAGCACCAG	5520
TGCGTCGGCT	TCAGCATCAA	CCAGTGCCTC	AGCCTCAGCA	AGTATCTCAG	CGTCTGAATC	5580
GGCATCAACG	AGTGCCTCAG	CCTCAGCAAG	TACTAGTGCA	TCAGCTCAG	CATCAACGAG	5640
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GCATCAACGA	GTGCGTCGGC	TTCAGCAAGC	ACCAGTGCCT	CGGCCTCAGC	AAGCACCAGT	5880
GCTTCAGCTT	CAGCATCAAC	AAGTGCGTCA	GCTTCAGCAA	GTACATCAGT	TTCAAATTCA	5940
GCAAACCATT	CGAACTCACA	AGTTGGAAT	ACTTCTGGAT	CGACAGGTAA	ATCCCCAAAA	6000
GAATTGCCTA	ATACAGGTAC	TGAGTCGTCA	ATTGGATCTG	TGTTACTTGG	AGTTCTAGCA	6060
GCTGTTACAG	GTATTGGATT	GGTTGCGAAA	CGCCGTAAAC	GTGATGAAGA	AGAGTAAGAC	6120
AACCTGTAAA	GTTAGGCTAA	ACTAACTCGC	GCACATAAAT	CAAGGAGAAA	ATTGCTAGTG	6180
GATGATAAAA	TAACAGTCAT	TGTACCAGTA	TACAATGTGG	AAAACTATCT	GAGGAAGTGC	6240
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TCTACGGATG	CTTCAGGTGA	AATTTGTAAA	GAATTTTCAG	AAATGGATCA	CCGAATTCTC	6360
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ACTCTATATA	AAAAAATAGT	AGAGTATCAG	GCTGATATTG	CAGTTGGTAA	TTATTATTCT	6540
TTCAACGAAA	GTGAAGGAAT	GTTCTACTTT	CATATATTGG	GAGACTCCTA	TTATGAGAAA	6600
GTATATGATA	ATGTTTCTAT	CTTTGAGAAC	TTGTATGAAA	CTCAAGAAAT	GAAGAGTTTT	6660
GCTTTGATAT	CTGCTTGGGG	TAAACTCTAT	AAGGCAAGAT	TGTTTGAGCA	GTTGCGCTTT	6720
GACATAGGTA	AATTAGGAGA	AGATGGTTAC	CTCAATCAAA	AGCTATATTT	ATTATCAGAA	6780
AAGGTAATTT	ATTTAAATAA	AAGTCTTTAT	GCTTATCGGA	TTAGAAAAGG	TAGTTTATCA	6840
AGAGTTTGGA	CAGAAAAGTG	GATGCACGCT	TTAGTTGATG	CTATGTCTGA	ACGTATTACG	6900
CTACTAGCTA	ATATGGGTTA	TCCTCTAGAG	AAACACTTGG	CAGTTTATCG	TCAGATGTTG	6960
GAAGTCAGTC	TCGCCAACGG	TCAAGCTAGT	GGTTTATCTG	ACACAGCAAC	GTATAAAGAG	7020
TTTGAAATGA	AACAAAGGCT	TTTAAATCAG	CTATCGAGAC	AAGAGGAAAG	TGAAAAGAAA	7080

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GCCATTGTCC	TCGCAGCAAA	CTATGGCTAT	GTAGACCAAG	TTTTAACGAC	AATCAAGTCT	7140
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TGGATTAAAGC	AATTAAATAA	GCGCTTAGAG	AAGTTTGACT	CAGAAATTAT	TAATTGTCGG	7260
GTAACCTCTG	AGCAAATTC	ATGTTATAAA	TCGGATATTA	GTTACACAGT	CTTTTACGC	7320
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AATGAATGGC	ATGATAAGGT	GGATCAGGCA	GATCAGAGCA	TCTTGAATAT	GCTTTTGTAA	7620
CATAAATGGT	TGGAATTGGA	CTTTGATTAT	AATCATATTG	TCATTCATAA	ACAGTTTGCT	7680
GATTATCAAT	TGCCTGAGGG	TCAGGATTAT	CCTGCTATTA	TTCATATCT	TTCTCATCGG	7740
AAACCGTGA	AAGATTTGGC	GGCCCAAACC	TATCGTGAAG	TTTGGTGGTA	CTATCATGGG	7800
CTTGAATGGA	CAGAATTGGG	ACAAAACCAT	CATTTACATC	CATTACAAAG	ATCTCACATC	7860
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CACTATTTGG	TAGATGTCCA	TAATGAATTG	GTAGAAACCA	GTCAAGTACT	TTTAGATATT	8100
AATCATGGCG	AAAAGACAGA	AGAAATCTCT	GATCAATTTG	CTAATCTTGG	CAAGCCTATC	8160
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GTTCAAGCAA	TGATTGAAAA	ATTGAGAGAA	ATAAGCAAAT	CAAGAAAAAT	CATTTAGTAG	8280
GAGATGCTCT	GATTTTGACG	GTTAGTGATC	AGATTGAAGA	GTTGGATTAT	TTTTTATAAA	8340
ATTTCTCCGT	TCATCATATA	TGAAAGTTGT	TCAAACATCA	GAGTGCTTTA	TAAAATATAA	8400
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TATATTATAG	CTGTTTGATA	CGAAATTTAT	TATAAGGAAA	TTATGTTAAT	GAATACAAAA	8580
TCTATAGTTT	TTAATGCAGA	TAATGATTAT	GTAGATAAAT	TAGAACTGC	AATTAAATCT	8640
ATTTGTTGTT	ATAATAATTG	TTTAAATTT	TATGTATTTA	ATGATGATAT	TGCGTCAGAG	8700
TGGTTTTTGA	TGATGAATAA	GCGATTGAAG	ACTATACAAT	CTGAAATCGT	TAATGTAAAG	8760
ATTGTAGATC	ATGTTCTTAA	AAAGTTTCAT	TTACCGTTAA	AGAATTTAAG	TTATGCCACT	8820

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TTCTTTTCGTT ATTTTATACC TAATTTTGTC AAAGAAAGTC GTGCTTTATA CCTAGATTCT	8880
GACATCATTG TTACAGGAAG TTTAGACTAT TTATTTGATA TAGAACTAGA TGGTTATGCC	8940
TTGGCAGCAG TAGAAGATTC TTTTGGTGAT GTTCCTTCTA CCAATTTTAA CTCCGGAATG	9000
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CACATAGAAG GAAATCATAA ATGGTATGAG ATTTCTGAGT TGAAAAATGG AGATTTACCT	9240
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AAGAAAAGAT AGCTATTTTA GCAAGTTCAG ACTATGACTT GACCAATCAT ATTTTGATTT	10560
ATAAAAATAG ATTACAAAGA GTGATAGCAA AATTAGAAGA ACAAATATG CAGTTCACAG	10620

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AGATTTACAG AAGAATGATG GAAAAATTGT CTTTACTTCC GTAGATAGTA ATAAAAAATG	10680
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GTTATCTTAG CTCAAAATGC TGTTCAAAAG ATAGCTAGTC AACTGGGATT TAGAGAGGTT	10800
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GGTGATCAAA CGATTTTAA TCAGGTCTTG CAAGATGATT GGTTAGAACT AGGTCGAGCT	12300
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GCTTTTAATG ATAAACCAGT GGTGATTCAT TTTACGACCT ACAGAAAACC CTGGACTACC	12420
TTGACAGCCA ATCGTTATCG TGATTTATGG TGGGAATTCC ATGATTTGGA GTGGAGTCAG	12480
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GCTCTTAGAC	ATGCTTTGCT	ATCCTAATGT	GGCCCTTTAC	CAGAACGCTA	GTCCACAGAA	27240
GATTCAGGAG	CTGTATCAAC	TGTCGGATAT	TTACTTGGAT	ATAAACCCACA	GTAATGAGTT	27300
GCTACAGGCA	GTGCGTCAGG	CCTTTGAGCA	CAATCTCTTG	ATTCTTGGCT	TTAATCAGAC	27360
GGTGCACAAT	AGACTTTATA	TCGCTCCAGA	CCATCTATTT	GAAAGTAGTG	AAGTTGCTGC	27420
TTTGGTTGAG	ACCATTAAAT	TGGCCCTTTC	AGATGTTGAT	CAAATGCGTC	AGGCACTTGG	27480
CAAACAAGGC	CAACATGCAA	ATTATGTTGA	CTTGGTGAGA	TATCAGGAAA	CCATGCAAAC	27540
TGTTTTAGGA	GGCTAACATG	TCAGAGGAAG	ATTTATTTTA	CAAAGACGTT	GAAGGCCGCA	27600
TGGAAGAGTT	GAAACAAAAA	CCCATCAAGA	AGGAAAAAGA	AACCCGAGGG	GAAAAGATTA	27660
GTAAGACTTT	TTCACTTTTA	CTGGGTTTGA	TGATTCTGAT	TGGTTTGCTC	TTTACTTTGC	27720
TGGGAATTTT	GAGGTAGATC	TATGATTGAA	ATACTAATTG	TTTTAGCTAT	TATCCTATCT	27780
CTTGCTTTGA	TTGTATTGGT	AACTATACAA	CCCCGTCAAA	ATCAACTATT	TTCCATGGAT	27840
GCCACTAGTA	ATATTGGTAA	ACCAAGCTAC	TGGCAGAGCA	ACACCTTGGT	CAAGGTGCTC	27900
ACTTTATTGG	TGAGTTTGGC	TTTATTTATT	CTACTATTAA	CCTTTATGGT	GATTACTTAT	27960
AAATAAAAGA	AAACTTCAGA	TATTCACCTT	TTGTGGATTG	GTCTGAAGTT	TTCTTTTTTA	28020
TACTCAATGA	AAATCAAAGA	GCAAACTAGG	AAGCTAGCCG	CAGGCTgCTC	AAAACACCGT	28080
TTTGAGGTTG	TAGATATAAC	TGACGAAGTC	AGCTCAAAAC	ACCGTTTTGA	GGTTGTAGAT	28140
ATAACTGACG	AAGTCAGCTC	AAAACACCGT	TTTGAGGTTG	TGGATAGAAC	TGACGAAGTC	28200
AGCTCAAAAC	ACCGTTTTGA	GGTTGTGGAT	AGAACTGACG	AAGTCAGCTC	AAAACACCGT	28260
TTTGAGGTTG	TGGATAGAAC	TGACGAAGTC	AGCTCAAAAC	ACCGTTTTGA	GGTTGTGGAT	28320

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AGAACTGACG	AAGctCAGTA	ACATATATAC	AGCAAGGCCA	CGCTGACGTG	TTTTGAAGAG	28380
TATTACTGTC	TATATTTTTG	GTAAAAATCA	ACTTTTACTT	GGATGAAGGT	TTTGGCTTCA	28440
CGTAGGAGTT	GAAGAAGGGT	GGCGCGGGTT	TCAAATTCTT	CTCTTGCTTT	GGGCAGACTG	28500
CGGTTCCGGA	AGACTTCCAG	ATAACGTTCA	ATTTTCATCTA	GCAAATCAGA	AGCAGGATTG	28560
GTCTGGCTCA	GTTGACCTGC	AATTTTTTGA	AAGAGTTGCG	CTAAGATCAG	GCTTTTCACTG	28620
GCGGCAAGGT	GACAAGTGTT	AATCTGTTGG	GCCATGTTTC	TCAGGATACG	ACTTTGTGCG	28680
TGTCTCATCT	CAAAGTAGTG	GATATGGTAG	TCTGTCTGGT	GAAAGAGGTG	GTCAGAGTGA	28740
TCCAAATAGA	CCAGTCTGAG	GGCTTCTTTC	AAAAGCGTGT	CTAATTCTGC	TACCAGCTGT	28800
GCTCGGTTGC	GTCCGTCTCC	TCTGGATAAA	TAGTATTTGA	AGCGCTGGAG	GATATCTTTT	28860
AACTTTTCTT	CCACCAGCGT	GTGGTAGTGC	TGGATTTCCCT	CTTCTCGTGA	AGGCATATAG	28920
AGATTAACAA	GCAAGGCAAA	TCCTGTACCA	ATAGCAAAGA	GAAGGAATTC	ATTGACTAGA	28980
AGGTCTGGAG	AGGTTGACTC	TTGAACCAAG	AGATGGCTAA	CCAAAACAGT	GCTTGGTGTG	29040
ATGCCAATTT	CCCAGCCCAT	CTTGTAGGCT	AAAGGAACGT	AGAAGGCCAG	ATAGAGGCCG	29100
AGACTCCAGA	TATGAAATCC	GCTCAAGTGA	AAAGCTAGAA	CACCGATAGC	CAGAGCTAGA	29160
AGCATAGAAA	AAAGACGATT	GCGAGCCAGT	TTTAAAGTAC	TTCTACCGGT	ATCAGATAGG	29220
CTCAAGAGAG	CGATAATTCC	AGCCGAAACT	GCTGACGAAA	GATTGAGAAA	ATAAGCAAGC	29280
AGGCAGGCAA	GACAGGTAGC	TAAGATGAGC	TTGGTCGTAC	GTTGGCTAAT	AGACATAAGA	29340
ATTTCCTAAT	AAGTTAGAAT	AAAAGCGTAA	AAGACAAGAC	ATGAGCAGGC	TTGCCTTGAT	29400
GAGTTATTTT	TTACGGGTTG	CTGCGTATTC	GGCAACGGCG	GTAAAGAGGA	CATCTGTAGA	29460
AGAGTTAAGG	GCTGTTTCAC	ATGAGTCTTG	GATGACACCA	ATCACAAAAC	CAACCCCAAC	29520
AATTTGTATG	GCAATATCGT	TAGAAATACC	GAAAAGGCTA	CAAGCAACTG	GGATAAGAAG	29580
GAGGGAACCT	CCGGCAATAC	CTGAAGCATC	ACAGGATGAG	ATAGCTGCTA	CCACACTGAG	29640
GACAAAGGCT	GTGGCAAAGT	CAACAGGAAT	TCCAAGAGTG	TTAACTGCAG	CAAGGGTCAA	29700
AAGGTTAATG	GTAATCGCTA	CTCCAGCCAT	ATTGATAGTA	GAACCGAGTG	GGATAGAAAC	29760
AGAATAGGTA	TCTGGGTTGA	GTCCAAGGTC	ATGGCAGAGT	TTCATGTTGA	CAGGAATGTT	29820
AGTCGCAGAA	CTACGAGTGA	AAAAGGCTGT	CACACCGCTG	ACACGGAGGC	AGTTCCAAAC	29880
TAGAGGGTAA	GGATTGCGTC	TCATAAAGAA	GAAGGCAATC	AAAGGGTTGA	CCACAGGGGC	29940
AACAAAAAGC	ATAGTCGTTA	CTAATAGAAC	CAATAAAATA	CCGTAGTTGG	CAAGGCTTCC	30000
GACTCCCTTG	TCAGAAATGG	TTTTAAAAAC	AAGACCAAGG	ATTCCAAATG	GAGCCAGATT	30060

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GATGATCCAT TCGACAATTT TAGAAGTCAC GTCAGCGATA GTTTTTAGCA ATTCTTGACT	30120
ATTTTTACTG GCTTCTCTCA TAGCGATTCC AAAAATGACT GCCCAAGATA AGATTCTAAT	30180
ATAGTTAGCA GTAAGCAGGG CGTTGACTGG GTTGTCAACC AGTTTGAGCA AGAGGTTGCT	30240
GAGAACCTGC CCAATCCCAT CTGGTGGTGC AATTTTCAGTA TTGGCACTAT TTGGGGTAAT	30300
TTCAATAGGG ACGATGAAAT TTGCTAGTAC AGCTACAAGA GCAGCGGCGA AAGTCCCTAT	30360
CATAGGATAT ACAAGAAAAC AACAGTTTTC ATATTGCTAT CTTGTCCCTT TTGATGTTGG	30420
GAAAGGGCAT TGGCAACGAG AGCAAAGACT AGGATAGGAG CAACAGCTTT TAGACCTCCA	30480
ACGAATAAAT CCTCGAGTAG CCCAATCCCT GAGAGATTAG GAAGGGTCAG TCCTAGGATT	30540
CCCCACAAAG CATACCAATC AAGATACGCT TGACAAGGCT TGCCTTATTC CAAGCATGAA	30600
TGATTCTTTT CATAATAATC TCCTTTTTGT GTAGTGATTA TGATTATAGT ATAAATGATA	30660
GACAAAATCA AGAATTTTCT GTCTATTTTT TGAATATTTA TGGAGAATGA GACTGATGAA	30720
AATATGGTAT AATGAAATAA AGGAGTTTTA TATGCAAAAA TTTATTCAGG CTTATATTGA	30780
AAAGCTAGAT GTGACAACCA TTATCGAGAA TATTCTAACC AAGGTCATTT CTCTTTTACT	30840
GCTTTTAATT GTATTTTATA TTGCTAAAAA AATGCTTCAT ACCATGGTGC AGAGAATTGT	30900
CAAACCTTCT CTAAAAATGT CTCGTCATGA TGTTGGACGC CAAAAACCA TCTCACGTTT	30960
ACTAGAAAAT GTGTTTAATT ATACGCTATA TTTCTTTTTA CTCTACTGCA TTTTGTCGAT	31020
TTTAGGTTTG CCAGTTTCTA GTTTGCTGGC TGGAGCTGGT ATTGCTGGGG TAGCGATTGG	31080
TATGGGAGCC CAAGGCTTTC TGTCTGATGT CATCAATGGC TTTTTCATCC TCTTTGAACG	31140
TCAACTGGAT GTGGGAGATG AGGTCGTTCT GACAAATGGA CCGATTACTG TATCGGGTAA	31200
GGTTGTCAGT GTGGGAATTC GTACGACACA GCTTCGTAGC GAGGAGCAAG CCCTTCACTT	31260
TGTCCTAAC CGAAATATCA CAGTTGTTAG CAATTTCTCA CGCACAGACT AGACCTGTTA	31320
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GAAGACCTTT CTGAAATTTA CGGTTTGGAC AAGGAAACCA TTGAATACGC ACTGGATAGA	31500
AACGAGCGCG CCCACATGGA CTACCACCGT GAAAGTGAGA CGGTTACCTT TATCTATAAT	31560
GTCTTAGACG TAAAAAAGGA CAAGGCCTAC TATGAGACTT TTCCCATGAC CTTTATTGTC	31620
GAGCATCGTC GCCTGATTAC CATTAGTAAT ACCAAGAACG CCTATGTCAT TGAACAGATG	31680
ACTCGTTATC TGGAGAACCA TGACACGCTT TCGATTTATA AGTTTCTCTT TGCCAGTCTG	31740
GAAATCATCA GCAATGCCTA CTATCCTGTC ATTGAGCAGA TGGACAAGAG TAGGGATGAG	31800
GTCAATGACC TCTTGCGCCA GCGAACTACC AAGAAAAACC TCTTTGTCCT GTCTGATTTG	31860

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GAGACTGGTA TGGTTTATCT GACGGCAGCT GCCAAACAAA ATCGGATTTT GTTAGAGCAT	31920
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GCCATGATTG AGGCTCATCA GCTGGTATCC ATGACAGACC TAATCTCTCA GATTTTACAG	32040
CAGCTTTCAG CCTCTTACAA CAATATTCTA AACATAATC TGAATGACAA TTTGACAACC	32100
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AATGTTCCCT TACCTTTAAC AGATGAGCCC CATGCTTGGC TCTATATCAG TTTGGCTAGT	32220
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AAGGAGCCAG AATGGCGATT GAAAATTATA TACCAGATTT TGCTGTGGAA GCAGTCTATG	32340
ATCTGACAGT CCAAGCCTG CAGGCGCAGG GAATAAAGGC TGTTTTGGTC GATTTGGATA	32400
ATACCCTCAT TGCTTGAAC AACCTGATG GAACGCCAGA GATGAAGCAA TGGCTACATG	32460
ACCTTCGGGA CGCGGGTATT GGCATTATCG TAGTGTCAA TAACACCAA AAACGCGTTC	32520
AACGAGCAGT TGAGAAATTT GGGATTGATT ACGTTTACTG GGCCTTGAAG CCCTTCACAT	32580
TTGGTATTGA CCGTGCTATG AAGGAATTCC ACTATGACAA AAAGGAAGTG GTCATGGTTG	32640
GTGACCAACT CATGACAGAT ATACGAGCAG CCCACCGTGC AGGGATTCCG TCAATTTTAG	32700
TCAAACCCTT GGTCCAACAT GACTCAATCA AAACGCAGAT TAACCGAACT CGTGAGCGTC	32760
GTGTTATG	32768

(2) INFORMATION FOR SEQ ID NO: 72:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 14872 base pairs,
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 72:

CCAGTCACAA AGAAATTGAG CGCGTTCAGC TGAGGATGCA CTATGATGCA AGCTACATTT	60
CATTTGATGG GATATTAAGA AAGGAGATTT TCATGACACT TTTAGATGTA AAACACGTTC	120
AAAAAATTTA TAAAACACGT TTTCAGGGCA ACCAAGTAGA AGCCCTCAAG GATATTCATC	180
TTACCGTAGA AAAGGGTGAC TACGTTGCCA TCATGGGTGA GTCTGGTTCT GTTAAATCAA	240
CTCTTCTCAA TATTCTAGCT ATGTTGGATA AACCAAGTCG TGGTCAGGTT TACTTGAATG	300
GAACTGACAC CGCAACTATT AAAAATTCAC AGGCTTCTAG TTTCCGGCGT GAAAAGCTAG	360
GATTTGTCTT CCAAGACTTT AACTTGCTAG ATACTCTGTC TGTTAAGGAC AATATCTTGC	420

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TTCCGCTTGT CTTGTCAAGA AGACCTATAA CGGAGATGAT GAAGAAATTG GTGGTGACAG	480
CTGAGAATCT GGGTATTAAC CAATTGCAAG AGAAGTACCC TTACGAGATT TCTGGTGGTC	540
AGAAACAGCG TGTAGCAGTA GCCCGCGCCA TCATCACAGA ACCTGAAATT CTCCTTGCGG	600
ACGAGCCAAC AGGAGCCCTT GATTCCAAGT CATCTGCAGC CTTACTTGAT GTCTTTAATG	660
AAATCAATGA GCGTGGGCAA ACCATCCTCA TGGTAACCCA CTCAACAGCA GCTGCTAGCA	720
GGGCCAAGCG TGTTCCTCTT ATCAAAGACG GCATTCTTTA CAACCAAATC TACCGTGGAG	780
AGAAGACAGA GCGTCAGATG TTCCAAGAAA TCTCTGATAC CTTGACTGTC ATGGCAAGCG	840
AGGTGAATTA GTATGTTTCG ATTAACCAAT AAGTTAGCGG TATCGAACTT GATTAAAAAC	900
CGCAAACCTCT ACTATCCCTT TGCACCTGGCT GTTCTCTTGG CAGTCACCAT CACCTATCTC	960
TTTTACTCCC TAACCTTCAA TCCAAAGATT GCGGAAATCC GTGGAGGAAC CACCATTCAA	1020
GCAACACTTG GATTTGGTAT GTTTGTCGTT ACCCTTGCGT CACCATTATC GTCCTCTATG	1080
CCAATAGTTT TGTTCATGAAA AACCGTTCCA AGGAACTGGG TATATATGGC ATGTTAGGCT	1140
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TCGCCCCGAT GAATGCCCTC CAGCTCTCGC GTGAGAAAGC AACCGGAGAG AAAAGAGGTC	1440
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TTATCTTTGG TACTTATCTA TTGTTTAATG CAGGGATTAC AGTCTTCCTA CAAATCTTAA	1620
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TAAATCCTCA TGATTTTGGG GTTTCAGGGC AAAATGTTGA AAAAGAAGAT TTGGACAAAC	1860
TCTTGAGCCA GTTTGCAAGT GACAAAGGTT ATAGTGTCAG AGAGAAAGAA GTACTTCGTT	1920
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AAAACCGTGT CCAACCCACA ACAGTTTTC TGGTATTTGA CAAAAAGAT TATGAAAAATA	2040
TGACTGGTCA AAAACTGTCT CTATCAGGAA ATGAGGTCGG TCTCTTTGCC AAAAATGACG	2100
GACTGAAAGG ACAGAAAGCT CTAACCTCTA ATGATCATCA ATTTTCTGTC AAAGAAGAAT	2160
TTAATAAAGA TTTCATTGTG AACCATGTTT CAAATAAGTT TAATATCTTG ACTACTGATT	2220

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ACAATTACCT TGTGTTCCCT GATTTACAAG CCTTTTGGGA TCAATTCCCA GATTCCGGCTA	2280
TCTATAATCA GTTTTACGGT GGTATGAATG TAAATGTCAG TGAAGAAGAA CAACTCAAGG	2340
TCGCTGAGGA GTATGAAAAC TACCTCAATC AATTTAATGC TCAATTAGAC ACAGAAGGTA	2400
GCTATGTTTA TGGTAGCAAT CTAGCAGATG CTAGTTCTCA GATGAGTGCC CTCTTTGGTG	2460
GTGTCTTCTT TATCGGTATT TTCCTATCCA TTATCTTTAT GGTCGGAAC GTTCTGGTCA	2520
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AAGTCGGTTT GGACCAAAG CAAATCAAGC AAACCATCAA CAAACAGGTT TTAAGTGT	2640
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CGGATACATA TTCTCCACCA GCCATTGAAA AGGCACCAGC TAAGATAGCC GTAAAACCTG	3420
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CACTTTTCGA TGAATGCGAC TTCTTTGGGA GTCATTTTCT TGGTTCCTT AGGTAACCAT	3720
CTACGAATGA GCCTGTTGTG ATTCTCATTA GTTCCCTTT CCCAAGAGGC ATAGGGATGT	3780
GCATAATAAA TGTGCTCCTC AGAAAATACA TTAGACAAGC GATTGAATTC CGTTCCATTA	3840
TCTGCCGTGA TGGAAAGAAT CTTGTGTTGT TTAAAGATGA GTTTTAGAGC CTGATTGACC	3900
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TGTTTGCTTA ACCCCAATTT TCCATGATGA ATCCAATAGT AAATGGTTGA AATTCCCACG	4200
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ATCTTTTCCT TTAGTTCCTT GGTCAAGCTT GATTTCTTGA CCGAGCGCTT GCGATTGTTT	4320
TCATAAGACT GTTGAGCATA GTCGGCAGAA TAAACCTCTT TGAAGCGCCC TTTTCCAAGA	4380
CATTGTCGGA CTGTCCCACG CTTGATTTCA GTGTGGATAG TTTGAGGAAC TTTTCCAAGC	4440
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TGCAGAGCAG GTGAAAACCT GCTCTTTTTT CATGAGTCAA CCTTTAGTTC CTTAGTTTTT	5220
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CCAATTTATG AGGCCTTGGT GAAGTTACGC AAGAAAAGGA TTGTTCCCTT TGATGTTCCA	5340
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GGCATTGATG TCAATTCGAT GAAACCTTTG GATAATTTAG GCCATCCTAT TTCGATTATT	5460
CGTGATGCAG AGGAGCTGGC TGCAGATGCT TTTGGAGCTA GCCATGCCTT TCTAATGATT	5520
GGTGAACAA CTTCATCGGT GCAGACTATG ATTCTGGCAA CCTGCAAGGC AGGAGATAAG	5580
ATTATCTGTC CACGAAATGT CCATAAATCT GCTATCAATG CGTTGGTCTT ATGTGGTGCC	5640
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AATGACCGAG TAGCACAGGC CATAAAGGAC CATCCAGATG CTAAGGCTAT CCTAATCAAC	5760

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AATCCTACTT	ACTACGGCAT	CTGTTTCAGAC	CTAAAGGGGT	TGACAGAAAT	GGCTCATGAA	5820
GCTGGCATGA	TGGTTTTAGT	AGATGAAGCC	CACGGAGCGC	ATTTGCATTT	CACTGATAAA	5880
CTTCCAATTT	CTGCTATGGA	TGCAGGGGCT	GATATGGCAG	CAGTTTCCAT	GCATAAGTCT	5940
GGTGGGAGTT	TGACCCAAAG	CTCCATTTTA	CTTATCGGGG	AGCAGATGAA	TTCTGAATAC	6000
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TTGGATATTT	CACGTCGCAA	CTTGGCCCTT	CGTGGTAAAG	AGTCGTTTGA	GAAAGTCATT	6120
GAGCTATCTG	AGTATGCCCC	CCGTGAAATC	AATGCTATCG	GTGGCTACTA	TGCCTACTCA	6180
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ATCCAAGACA	TCGAGCGCTT	GGTTGGTGCT	CTGGCTGATA	TTAAGAGACT	CTATTCAAGA	6420
GATGGAAGAG	ATTTGATAGC	AGGAGAATAT	ATTCAGCCCC	AGTTAGTGCT	GTCTCCGCAA	6480
GAAGCCTTCT	ATTCAGAAAG	AAAAAGTTTA	ACTTTGGATG	ATTCTGTTGG	ACAGGTCTGT	6540
GGAGAATTTG	TTATGTGTTA	CCCTCCAGGT	ATTCCTATCT	TGGCTCCTGG	TGAACGCATT	6600
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CAAATCCTGC	CTCAAGCCTT	TTCTGAGGAT	TAGGGTAGCG	TGTCAAGAGT	TGGTAGGTAT	6900
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TGTATTGTAC	TTTCCAATCA	GACTGTTTTT	TCTTGAGACG	ATGAATATGT	CTAGCCAGTA	7020
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GTTTAAGAGC	GATGCCATGA	GCGTCTTTCT	TATCCGTTTT	AGTTTTCGGA	AGTGATAATG	7140
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GCAGGAAGTT	CAGTAGATTA	AAGGCATAAT	GTCCGGTATT	TTCAAGAGCG	ATGAGACAGT	7260
CTTGGTTGAG	CTGTGGAAGA	GACAGATCTA	AGAGTTCAAA	ACCAGCTTTA	TTATTTGAAA	7320
AAGTGAGTGG	TTTAAGAACA	GTTTTTCCTG	GAACATTCAA	GGCTGTAACA	TCGTGTTTAT	7380
TTTTAGCGAC	ATCAATGCCC	ACATAAAGCA	TGGGAGTATC	TCCAGATATA	GTATTTCAAG	7440
TCTACTGGGT	TATCCACGAA	CTTTTTGCCT	TGTTACCTTA	GACGAGATAA	AACGTCTATG	7500

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CGTTATCAAA	CTCATTACCA	ATTGAAACAA	AAAACGTGG	TTAGAGCCTT	TCGGAAATCG	7560
TCAAGCGATT	GGAGGAAATG	AACTAATCCA	CAGTGGCTTA	TTCCAAGTAT	ACCACTTGGG	7620
CTTTGGCAGT	AGCTAACTGC	GCTAAATATA	ATATAAGGAG	AAATAGATGG	ATTTATGGTT	7680
TTCTGAAGTT	CATACTCCAG	ATGTCAAATT	GTCTCTGAGA	ACAGCCAAGC	AACTTTACGC	7740
TGGAAAAAGT	GAATGGCAGG	ATATCGAAGT	CTTGGATACG	CCAGCTTTTG	GGAAAATACT	7800
GATTTTAAAT	GGCCATGTCT	TGTTCTCAGA	TGCGGATGAT	TTCGTCTACA	ATGAAATGAC	7860
CGTTCACGTT	CCCATGGCTG	TCCACCCAAA	TCCAAAGAAA	GTATTGGTTA	TTGGGGGTGG	7920
TGACGGCGGT	GTTGCCCAAG	TATTAACCCT	CTATCCTGAA	CTGGAGCAAA	TGATATTGT	7980
GGAACCGGAT	GAGATGTTGG	TCGAGGTCTG	TCGTGAGTAT	TTCCAGACT	TGCTGCAGG	8040
GCTAGATGAT	CCTCGTGTTA	CCATTTACTA	CCAAAATGGG	CTACGCTTTT	TGCGAAACTG	8100
CGAAGATGAT	TACGATATTA	TCATCAACGA	TGCGACAGAT	CCATTTGGCC	ATACGGAAGG	8160
ACTCTTTACC	AAGGAATTCT	ACGGCAATAG	TTATCGAGCT	CTGAAGGAAG	ACGGCATCAT	8220
GATTTACCAG	CATGGGAGTC	CCTTCTTTGA	CGAGGATGAG	TCGGCCTGCC	GAAGCATGCA	8280
CCGCAAGGTC	AATCAAGCCT	TTCCAATCAG	TCGGGTTTAT	CAGGCCATA	TTCCAAC TAG	8340
CCCAGCTGGC	TATTGGTTGT	TTGGATTGTC	ATCGAAAAAA	TACCACCCTG	TCAAAGATTT	8400
TGACAAGGAA	GGCTGGAAAA	AACGCCAGCT	TTTCACAGAA	TACTACACTG	CAAAC TTACA	8460
CGTGGGAGCC	TTTATGTTGC	CCAAGTATGT	TGAGGACATT	TTAGAAGAAG	AGGAAGGAAA	8520
AAAATGAGTC	GTTTACTAGT	TATTGGTTGT	GGGGGCGTTG	CCCAAGTTGC	TATTTCAAAG	8580
ATTTGTCAAG	ATAGCGAAAC	ATTTACAGAG	ATTATGATTG	CTAGCCGTAC	CAAGTCAAAA	8640
TGCGATGACT	TGAAAGCGAA	GCTAGAAGGC	AAAACAAGTA	CTAAAATTGA	AACTGCAGCA	8700
CTTGATGCTG	ACAAGGTTGA	AGAAGTGATT	GCCCTGATTG	AAAGCTACAA	ACCAGAAGCT	8760
GTTTTGAATG	TAGCTCTGCC	TTATCAAGAT	TTAACCATTA	TGGATGCTTG	TTTGGCAACA	8820
GGTGTTCACT	ATATCGATAC	AGCCAAC TAC	GAAGCAGAAG	ACACAGAAGA	CCCTGAGTGG	8880
CGTGCTATCT	ACGAAAAACG	TTGTAAGGAA	CTTGGTTTTA	CAGCCTACTT	TGACTACTCA	8940
TGGCAGTGGG	CTTATCAAGA	GAAATTCAAA	GAAGCAGGCT	TGACTGCTCT	TCTTGGTTCT	9000
GGTTTTGACC	CAGGTGTAAC	TAGTGTCTTT	TCAGCTTATG	CCCTCAAACA	CTATTTTGAT	9060
GAAATCCATT	ATATCGACAT	TTTAGACTGT	AATGGCGGTG	ACCACGGTTA	TCCATTTGCA	9120
ACCAACTTTA	ATCCAGAAAT	TAATCTCCGT	GAGGTTTCTG	CGCCAGGTTT	TTACTGGGAA	9180
GATGGGAAAT	GGGTCGAAGT	CGAAGCTATG	TCTATCAAGC	GTGAGTATGA	TTTCCCTCAA	9240
GTTGGACAAA	AAGATATGTA	TCTCCTTCAC	CATGAAGAAA	TGGAATCATT	GGCCAAGAAC	9300

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ATTCCAGGTG TCAAACGCAT TCGTTTCTTT ATGACTTTTG GTCAATCTTA CTTGACGCAC	9360
ATGAAATGTC TTGAAAATGT TGGACTCCTT CGTACGGATA CCATTAACTT TAACGGCCAA	9420
GAAATTGTTT CAATTCAATT TTTGAAAGCC TTGCTTCCAG ATCCTGCCAG TCTTGGGCCA	9480
CGTACAGTCG GAAAAACCAA TATTGGATGT ATCTTTACAG GTGTCAAAGA CCGTGTCAAA	9540
AAGACTATCT ATATCTACAA TGTCTGCGAC CATCAGGAAT GTTACGCAGA GGTGGTTTCG	9600
CAAGCTATTT CTTATACGAC AGGAGTTCCA GCCATGATTG GGACAAAATT AGTCATGAAC	9660
GGAACCTGGA AACAAGCTGG AGTGATAAAC CTTGAGGAGT TAGATCCAGA TCCATTTCATG	9720
GAAGCTTTGA ATGAGTATGG TTTGCCATGG GTTGTGGTTG AAAATCCACA AATGGTGGAC	9780
TAATGAAGTT AGAACAAGTA CCAACACCAG CCTATGTTAT TGAATTGGCC AAGTTAGAAG	9840
CTAATTGCCG CATTCTACAA TATGTACAAG AAGAGGCCGG TTGCAAGGTC TTGCTTGCCC	9900
AGAAGGCATA TTCCCTCTAC AAAACTTATC CCTTGATTAG CCAGTATCTA TCAGGTACGA	9960
CAGCTAGTGG ACTCTATGAG GCCAAATTGG CAAGGGAAGA ATTTCTGGT GAAGTCCATG	10020
TATTTGCGCC TGCTTTCAAG GATGCAGACT TGGAGGAATT GCTAGAGATA ATGGACCATA	10080
TAGTCTTTAA CTCAGAGAGA CAGTTGCGTA AACACGGTCC GCGTTGTCGA GAGGCTGGTG	10140
TCAGTGTGG TTTGCGCTC AACCCTCAGT GTTCAACTCA AGGcAGATCA CGCGCTCTAT	10200
GACCTTGTG CACCAGGTTT TCGCTTTGGA GTTACTATAG ACAAGATTCC GAGTGATTTG	10260
CTAGATTTGG TTGACGGACT TCATTTTCAT ACCCTTTGCG AGCAGGGAGC AGATGATTTA	10320
CAAACAACCTT TGAAAGCAGT AGAAGAACAG TTTGGTCCCT ACTTACATGA GGTAAAATGG	10380
CTCAATATGG GTGGTGGTCA TCATATTACA AGAGAAGGTT ACGATGTGGA TTTGCTGATT	10440
TCAGAAATCA AGCGTATCCG AAAAATTAC AATCTTGAAA TCTATATCGA GCCTGGTGAA	10500
GCCATTGCGC TTAATGCGGG TTATTTAGCA ACTGAGGTAT TAGATATTGT AGAAAACGGT	10560
ATGGAAATCT TGGTTTTAGA CGCCTCTGCG ACCTGCCATA TGCCTGATGT ACTTGAGATG	10620
CCCTATCGTC CACCTTTGAG AAATGGCTTT GAGTCACAGG AAAAAGCCCA TACCTACAGA	10680
CTTCTTCTA ATACCTGTCT GACGGGCGAT GTGATTGGTG ATTATAGTTT TGAAAATCCA	10740
GTCCAAATCG GAGACAGACT TTATTTTCAA GACATGCCCA TTTATTCTTT TGTCAAAAAT	10800
AATACCTTTA ATGGTATTGG ATTGCCAAGT CTCTATCTCA TGGACGAACA GGGAGACTGT	10860
AGCTTACTCA AAGCTTTTGG CTATCAAGAC TTAAAGGGA GATTATCATG ATGGACAGTC	10920
CAAAAAAATT AGGCTATCAC ATGCCAGCAG AGTACGAACC CCATCATGGT ACCCTCATGA	10980
TATGGCCGAC TCGACCAGGA TCATGGCCTT TTCAAGGAAA GGCTGCTAAA AGAGCATTTA	11040

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CTCAGATTAT CGAGACCATA GCAGAAGGGG AAAGAGTCTA TCTTTTGGTG GAGCAGGCCT	11100
ATCTATCTGA AGCCCAATCC TATCTTGGAG ACAAGGTTGT TTATTTAGAC ATTCCCACCA	11160
ATGATGCCTG GCGCGTGAT ACTGGCCCAA CCATTCTCGT CAATGATAAA GGTAAGAAAT	11220
TAGCCGTGGA TTGGGCCTTC AATGCTTGGG GAGGCACCTA TGATGGTCTT TATCAAGATT	11280
ATGAAGAGGA TGACCAAGTA GCCAGTCGTT TTGCTGAGGC CTTGGAAAGG CCTGTCTATG	11340
ATGCTAAACC TTTTGTACTG GAAGGAGGCG CAATCCATAG CGATGGTCAA GGAACATTTC	11400
TCGTAACCTGA AAGTTGCTTG CTTAGTCCTG GTCGCAATCC TAACTTGAAT AAAGAGGAGA	11460
TTGAAAACAC ATTATTAGAA AGTCTTGGTG CTGAAAAAGT TATTTGGCTT CCTTATGGTA	11520
TTTATCAGGA TGAAACCAAT GAACACGTCG ATAATGTTGC TGCCTTTGTT GGTCTGCTG	11580
AGCTTGTTTT GGCTTGGACA GATGACGAAA ATGATCCCCA GTATGCCATG TCAAAAGCAG	11640
ATCTCGAACT CTTAGAACAG GAAACAGATG CAAAAGGTTG TCACTTCACC ATTCATAAAT	11700
TGCCTATCCC TGCAGTTCGA CAAGTTGTGA CAGAAGAAGA TTTGCCAGGC TACATCTATG	11760
AAGAAGGAGA AGAAAAGCGA TACGCAGGTG AACGACTAGC AGCTTCCTAC GTAAACTTTT	11820
ATATCGCCAA CAAGGCTGTC TTGGTTCCAC AGTTTGAGGA TGTAACGAC CAAGTGGCCT	11880
TAGATATCCT CAGCAAGTGT TTCCCAGACC GTAAAGTTGT CGGAATACCA GCCAGAGATA	11940
TTCTCTTAGG TGGTGGCAAT ATCCACTGTA TCACCCAACA AATTCCAGAA TAGGAGAAAA	12000
AGATGAGAAA TGTAAGAGTT GCAACCATTC AGATGCAATG CGCTAAGGAT GTGGCAACAA	12060
ATATCCAAAC CGCAGAGCGT TTAGTACGTC AGGCTGCTGA GCAAGGAGCC CAAATTATTC	12120
TCTTGCCCGA GTTGTPTGAA CATCCCTATT TCTGTGAGGA ACGTCAGTAT GACTACTACC	12180
AGTATGCCCA ATCTGTAGCG GAAAATACTG CCATTCAGCA TTTTAAGGTG ATTGCTAAGG	12240
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CTATTGCCGT CATTGATGCA GATGGGGAAG TGCTGGGCGT TTATCGAAAG ACCCATATAC	12360
CAGATGACCA TTATTATCAA GAAAAATTCT ATTTACGCC TGGTAACACT GGTTC AAGG	12420
TCTGGAATAC TCGCTATGCT AAGATTGGTA TCGGTATCTG TTGGGATCAA TGGTCCCTG	12480
AAACAGCGCG CTGTCTTGCA TTGAATGGTG CTGAATTGCT CTTTATCCT ACAGCTATCG	12540
GTTTCAGAGCC AATTTTGGAT ACAGATAGTT GTGGTCACTG GCAACGTAAT ATGCAAGGGC	12600
ACGCAGCAGC GAATATTGTT CCAGTCATCG CAGCCAATCG TTATGGTTTA GAGGAGGTTA	12660
CTCCTAGTGA GGAAAATGGC GGACAGAGCT CCAGTCTTGA CTTCTACGGT TCCTCCTTTA	12720
TGACGGATGA AACAGGAGCT ATTCTAGAAC GAGCTGAAAG ACAAGAAGAA GCTGTTCTGT	12780
TAGCTACTTA TGACCTAGAC AAGGGAGCAA GTGAACGCCT AAAGTGGGGC TTGTTTCGAG	12840

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ATAGAAGACC AGAAATGTAT AGACAAATTA CAGATTAGTG TGGGAGAAAT GAGAGATTCA	12900
TTCTGCTAGA CTAACCTTCTT ATTAGTAACT ATAAGATACT ATGGCATCTA GTAAATCGAT	12960
TTTTATGATT CGCTATTCTT GTCTATTGAT TAGTCCGTAT TTTAAATAT TAGCAAAAAA	13020
GCAAATAGCA GTAACCTCTG TCTATTTGCT TTTCTTTTTT ATAGAATATA TTTCTCAATA	13080
GCACGCGCAA CGCCGTCTTC TTCGTTGCTT GAGGTAACGG CATCCGCAAG AGATTTGATA	13140
TAATCGCTGG CATTTCCCAT TGCAATCCCA AGCCCTGCAA ACTGGAGCAT TTCGATATCG	13200
TTATTAGCAT CGCCCATGGC CATAATCTCT GAGGAATCAA TCTTCAAAAT CTCAGCTAGT	13260
CGTGAAAGAG CAGTAGCCTT TGTCGTTCCA AGCGGCATTG CTTCATAAAT GACAGGCTGC	13320
GAACGAACTC CACTGAATCG TTGGCAAAGC TCTTCAGCAA AACGCTGCTC AAAATCGTCT	13380
GTTTGTCTT TTGTTCTTAA ACACATACCT TGGAACATCC GGAACCTTCC ACTAGTCGCT	13440
TCTTCAAGAG AAATTTCACT CAGGTCTGAA AATACTAGTT TAGCATCATT TTCAATAACT	13500
TGATTGGGCT TGTCACCGAG AACAAAATAA TGTGACTCGT CAAAAAGTGT CAACTGAACA	13560
TCACTCTTTT CAGCAAGGTC ATAGAGGTAT TCGATGTCAG CTGGACTCAG TTCTTTCCAG	13620
TCAACTAGAC TCCAATCACT GGTCTGGTGA GTTGAACAAC CGTTCTTAAC AATAATATAT	13680
TCGTTCTGGA GGTCAAGCTC CACTTTTTTG TAGTAGGGA GGACACCGAA AAGGGGGCGA	13740
CCCGTACAGA GAACCACTTT GACACCTTTT TCAATGGCTT TGTGAATAGC AGTAATGTGT	13800
GCTTGTGGGA TTTCCTTGGC TTCATTGAGG AGGGTGCCGT CCATATCCAA GGCTAGTAGT	13860
TTAATCATAG GTCTTCCTCT TTATCTTTGC TATTATTATA GCATATTTTG GAGAAGAAAT	13920
TGATAGAAAG CTTGAGACTA ATTGATTTTA TAGTTTAAGA TGTTTTGATG ACAATTCATG	13980
ATTTGAAGAG GATATTTTCG AAAGATATGC TATACTATGT TTGTCAATGT TGCAACTAGA	14040
CAAATTAATA AACCAACTTA ATATAATAGT TTTTTTGTA GTAGGTATGA GTAGCAGATT	14100
ACTCAACTAA TCTGAAGAAT AATGGAGGAA ATATATCATG ATTTTAATGA CAAAAATAT	14160
AAATCTAACA AATGAAGAAT TAGAGCTGAT ACAAGGTGGA GCAGATCCAT ATGGTAAAAA	14220
TCCTAATGGT AGGTACGATT GGGAAATAGA ACCAGTATTA ACTCTGCTGG TTCATGGATT	14280
TTGTCCCAGA GGCACCTATG ATTCAGGATA TATTGGAGGA GGTAATCATC TTTGCAAAGG	14340
AAGTGCTGCG AGATTTTAAG TAAATTTAT TAGGAATATG AAGAAACAAG GGGAGAAAAC	14400
AGAGGATTTA ATATGAAAAA ACGAGCTATT CAAATTTTAC TAGCATTGTC CTTAATTTTT	14460
TACAAATCAA CTTGGTTTTG GAGGCTTTTC AATTATCTCG CAAAGCCCTA TCTACCAGCA	14520
AGTCGTGAAT TTTTTCAGAT TCTGCTTTTG ATGGAGAGCG GAGTTCTTTT CTTAGCGGTC	14580

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ATCTATCTAC TGGTTTTTGC AGGAAAGAAA ATTTTTCATT TCAAGTGGCA GCTGAGGTAC	14640
TTCATCTACC TTTTACTGGG CTACATCATT TCATATATGT CTGACTTCCT CTTTTCGTAT	14700
TTCATATCCC TGTCTTCAAA TCAGATTTCT TTGAATGAAA CGGTAGAAAT GATGGGGAGA	14760
CAGGAGTTCC CTTATGTCTT GCTCATCGTT TGCTTCATCG CCCCTATTGC TGAGGAATTG	14820
ATTTATCGAG GtGTGCTTAT GACAACCTGT TGCAAAAACT CACCTTGGTA CG	14872

(2) INFORMATION FOR SEQ ID NO: 73:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 10223 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: double
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 73:

CGTGCTATCG GTCTCAAAC CAATCTGGTC GCTATGGTCA AATCCAGTTG GAAAATCCAT	60
TCTTCTTGGA GCCATCTGCT GGATTGCCAT CATCCTCACC ACTCTTGGTA TGCAGACCCT	120
TATCGGCATT TTCTAATACT CTTGCAAAAT CTCTTCAAAC CACGTCAACG TCGCCTTGCC	180
GTAGGTATAT GTTACTGACT TCGTCAGTTC TATCTGCAAC CTCAAACCG TGTPTGAGCT	240
GACTTCGTCA GTTCTATCTG CAACCTCAA ACGGTGTTTT GAGCTGACTT CGTCAGTCGT	300
ATCTACAACC TCAAACAGT GTTTTGAGCT GACTTCGTCA GTTCTATCTG CAACCTCAA	360
ACAGTGTITT GAGCAGCCCG TGGCTAGTTT CCTAGTTTGC TCTTTGATTT TCATTGAGTA	420
TAACACAAAA GGTAGCCCAT CAGCTACCTT TTTCTTATGC TTCCTCAATC AAGCGAGTAT	480
GTTCTCTCTT GATACAGCGA TTCATCACGA TATCATCACA TCCACCATCA CGCAAAATCT	540
CTTTCGCTTC TAAACTTTCA AGTCCTAGCT GTGCCCCAAA AATCTTGGCA TCAGCTTTGA	600
GAAAATCACG CGCCACATCG GGCAGAAATT CACTGCGACG ATAAACATTG ACAATATCTA	660
CAGGAAAAGG AATTTTCAGCG AGGCTAGCAT AAGCCTTTTC ACCCAAGATT TCGCCACCTG	720
CCGCCTTGGG ATTGACTGGG ATGATTTTAT AGCCCCGAGC CTGCATTTCC TTTGTTACTC	780
GATTGCTGGT TGTTCCTTCA CGGTCAGACA AACCACACAC AGCAAGGGTT TTAATCGTTG	840
CGAGATACTG ACGAATCACG CCATCACTTG GATTGATAAA TTCTTGACTC ATAGAAATCC	900
TCCTTTTCA TCAGTATAGC ACATTTTGAA AAGGTTTGCA GAATTATACT ACAAAAAAGG	960
AGGACTAGCC CCCTTTTAT TTAGCCTCGT ACCAGGTTGC CCCTTCATTC TCATCTGCGA	1020
TAAGAGGAAC ACTGAGTTGA ATGGCTTCTT CCATGGTTTG TTTCACCAAT TTTTTCATCT	1080
CTACCAATTC AGATTTAGGC ACTTCAAGGA CGATTTCATC GTGCACTTGT AACAGCATCT	1140

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TAGTCTGATA ACCACCTGCA ACCAAGGCTT TATCCAGCTG AATCATGGCA ATCTTGAGAA	1200
TATCTGCTGC CGAACCCTGG ATAGGTGAGT TGATAGCAGT TCGCTCCGCA AAACCACGAA	1260
TATTGAAGTT GCGCGAATTG ATATCTGGCA ACTCACGGCG ACGCTTAAAG AGGGTCTCTA	1320
CATAGCCCTT ATCACGCGCC TCCCGCACCA CTTTCATCCAT GTAGTTTTTA ATACCTGGAA	1380
AACGTTCAAA GTAGGTATCA ATGTAGGCTT TGGCTTCCTT ACGACTAATT CCCAAATTAT	1440
TAGACAAGCC AAAGTCTGAA ATCCCATAAA CCACTCCAAA GTTAACTGCC TTGGCATTGC	1500
GACGGTCGTT TGCAGTCACA TCATCAGGAC GCTCAATGCC AAAGACCCGC ATGGCTGTCTG	1560
AAGTATGGAT ATCTGCCCCC TCTTGAAGG CCTTAATCAA GTGCTCATCC TTAGAAATAT	1620
GCGCCAAAAC GCGCAATTCA ATCTGTGAAT AGTCAGAGCT GAGTAGCACA CTATCCTCCC	1680
ACTCTGGCAC AAAAGCCTTC CGAATCAAGC GCCCCTGTTT CAATCGGGCA GGAATATTTT	1740
GCAAGTTTGG ATCCACACTA GACAAACGCC CGGTCTGGGT CAAATCCTGC ACATAGCGAG	1800
TATGAATCTT TCCATCAGCC AAAATCCAGT CCTGCAAGCC AATTACATAA GTAGATTGAA	1860
TCTTAGCAAT TTGACGGTAA TCCAGGATTT TCTTAACAAT CGGAGCAATA GGAGCGAGAC	1920
GCTCTAAAAC ATCCACTGCT GTCGAATAAC CTGTCTTGGT TTTCTTAGTG TATTCTAGAG	1980
GAAGTCCCAA TTTCTCAAAG AGAAGCACGC CCAACTGCTT AGGCGAGTTG ACATTAAACT	2040
CCTCACCAGC CAGCTCGTAA ATCTCTTGAG TCAGTTTTTC AATGACAAGC TCATTTTCAG	2100
CCTGCATCTC AAGCAAGGTC TCTTTCTTGA CCATAATCCC AGCAATTTCC ATCTTGCGAA	2160
GGACAAAAGC CAGAGGTTGC TCCATATCAT AAAGAAGCTC TAATTGCCCA TTTTCGCTGA	2220
GTTTTTCAAG TAAAATAGGC TCTGTTTCTA CCAAACAGC AAGTTTACAA GCTAAGTGT	2280
CCAAGAATTT CTCACGTTCA GGAATGGCCT TTTTAACACC CTTACCGTAG AAAGTTTCAT	2340
CATCAACCAA GTAAGTCTGA CCATAAAGAC TAGCGATGGT CGCAATTTCA TTGTCCTCCA	2400
CAGTCGAAAG GAGGTATTTA GCCAAACGGA TGTCAAAGC AGGCGCCTGC AAATCCACAC	2460
CAAAACGTTG CAAAAGAACT TTAACCTTCT TAAAGTCATA AACTCTCAGA GATGTTTTTT	2520
CTAAGAAATC CTTGAAAATC GGGTCTTGCA ACAGCTCAAG CTTGTCTGTG GCATAGAGCT	2580
TATCCCCACA AGACCAGACA AATCCAACCA AATTATCCGT ATGGTAATTC TCACCAAAAA	2640
GCTCAAAGTG GAAGATAGAC TCTTCACTCA GCATATCTTG ACTGATTTGG TCAACAATAG	2700
TAAAATCCAA ACTCTCAGAC ACATCAGCTG ACGACACATT TAAAGCCTGC TTTAGCTGTT	2760
TGAAGCCCAT CTCATCGTAG AATTTCCCAA GATTTTCAAC ATCTGGACCA CTATAGACCA	2820
AGTCCTCTAA ACCAATCGCA ATCGGTGCCT TGGTATCAAT GGTCGCTAGT GTTTTAGACA	2880

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AAAAGGCCTG	TTCTTGTC	TTGATGAGAT	TTTCCTTCAT	CTTAGAAGTC	TTCATTCCAT	2940
CAATATTTTC	ATAAATCCCC	TCAAGCGAAC	CATGCTCCAG	CAAGAGCTTA	ATACCCGTCT	3000
TTTCACCGAC	TTTGGTCACC	CCAGGGATAT	TATCCGACTT	ATCACCCATG	AGCGCCTTGA	3060
GATCGATAAA	CTGAGCTGGT	GTGAGGCCCA	TTTCTTCCAT	GAGGTAATCT	GGCGTAAAGG	3120
CCTCAAACCTC	AGCCACACCT	TTCTTGGA	TTTCAACCAC	CGTATGCTCA	TCCGTCAGCT	3180
GAATCAAATC	CTTGTCCCCA	CTGACAATAG	TAATATCAAA	ACCATCCTGC	TCTGCTAGCT	3240
TATCCAGCGT	CCCAATGATG	TCATCCGCCT	CATACTGAGC	CAGATCATAG	TGACGAATCC	3300
CCATATGATC	CAGCAACTCA	CGAATGAAAG	GAAATTGCTC	ACGAAACTCA	TCAGGAGTCT	3360
TGGCCCGACC	ACCCTTATAG	TCCGCATACA	TCTCTGTCCG	GAAGGTCTGC	TTTCCCGCAT	3420
CAAAAGCCAC	CAAAATATGA	CTCGGCTCAA	CCCGCTCCAA	TAAATGACTC	AACATCAACT	3480
GAAAACCATA	AATCGCATTG	GTATGCAAAC	CAGCCACATT	CTTAAAACGG	TCCAACCTGCT	3540
GATACAGCGC	AAAAAACGCC	CGAAAAGCTA	CAGAAGACCC	ATCAATCAAT	AATAATTTTT	3600
TCTTATCCAT	ACACCCATTA	TAAAGGAAAG	AATCAAAAAA	TACCATTGGG	AAGAGCTAGA	3660
GCAAGTATTT	TTCAAACTTT	TTCCGAATAA	ATAGATAGAG	CCAGAGAATT	TAGTAAACCT	3720
AGATTTAAAA	ATGTGCTATA	ATATAGTATA	TTGAATCTAT	AATAGTACAC	CTTGACTGCT	3780
AAAATATTTTC	TATAAATTAA	TTTGACTTTC	CTGATAGAGT	TATTCACATC	TTATTTCAAC	3840
TCACTATAGA	AGGAGGAATA	GGAGGATTCT	CAGACATCCG	GGCATCAGCC	CAACTAATGA	3900
TTTGATTGCT	AAGAAAAATAT	TCAGCAATCC	AGAAATCACT	TGTCAATTTA	TTCGCGATAT	3960
GCTGGACTTG	CCAGCAAAAA	ATGTGACCAT	TTTGGAGGGA	AGCGATATTC	ACGTATTACT	4020
CTCCATGCCT	TACTCGGTGC	AGGATTTTTA	TACCAGTATA	GACGTCTTGG	CGGAGTTGGA	4080
TAACGGTACT	CAAGTAATTA	TTGAGATTCA	AGTCCATCAT	CAGAAATTTT	TCATCAATCA	4140
CTTGTGGGCT	TACCTGTGCA	GTCAGGTTAA	TCAAAATCTT	GAAAAAATTC	GTCAGCGAGA	4200
AGGTGATACT	CACTAGAGCT	ACAAACACAT	CGCTCCTGTT	TACGCCATTG	CTATCGTGGA	4260
TAGTAATTAT	TTCTCAGATG	ACCTGGCTTT	TCATAGCTTT	AGTATGCCCG	AAGACACAAC	4320
AGGTGAGGTA	TTGGCGATTA	CCAACAATGG	ACAGGAAAAC	CATCTGGTTA	AGATGGCATT	4380
CTTGGAATTA	AAAAATACAG	AGAAACCAGC	AAAGACAAGG	TTGCAAGCC	ATGGTTGGAG	4440
TTTTTCGGCA	ACAAGCCCTT	TACCCAGCAA	CCGCAACGAG	CCATTACCCA	AGCAAATCAA	4500
CTGCTGGAAT	ACAAGAGCTG	GTCCGAGGAG	GACAGGAAAA	TGTTTAGTCA	ACTACATATG	4560
CGAGAAGAAC	AAGTCTTGTT	AGCACAGGAC	TATGCCTTGG	AAACTGCTAG	GGCTGAAGGC	4620
CTTGAACAAG	GACTAGAGCG	TGGGAAAGTT	GAAGGAAGGG	CAGAAAGGAA	ACTTTTTGCC	4680

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TTCCTAGACA TAGTACGCCA AGGTCTTCTG ACTTCTGAGG TTGCCAGCCA GCAATTAGGT	4740
ATGTCAGTAT CTGAATTGTA GGCAGTGTG TAAAATGGCT CCATAATATC CATAGTGGGT	4800
AAATCCCCTA TGGATATTAT GGAGCCTATT TTGTGTAGAA AAAAAGTCCC ATATGACCTA	4860
TAATGAAAAG CGACAAAACA ACTCATTAGA AAGAATCATA TGGAAACAATT ACATTTTATC	4920
ACAAAATTAC TAGACATTAA AGACCCTAAT GTCCAGATTT TAAACATCAT CAATAAGGAT	4980
ACACACAAGG AAATCATCGC CAAACTGGAC TACGACGCCC CATCTTGCCC TGAGTGCGGA	5040
AACCAATTGA AGAAATATGA CTTTCAAAAA CCTTCTAAAA TTCCTTATCT TGAAACGACT	5100
GGTATGCCTA CAAGAATTCT CTTAGAAAAG CGTCGATTCA AGTGCTATCA CTGTTCAAAA	5160
ATGATGGTCG CTGAACTTC TGATGACGTA CAGTCATATT TCTTCTCTTT TTATTATATC	5220
ACAGTTTAA ATCTAGCTTT ACTAGATTCA CCGCTACTAT CTATTTATTC GGAAAAAGA	5280
CGAAAAACC TGAGAATCAT CTCAGGCTTG GTCATTAAAT TTTTTTCTCA ATATCGAAAA	5340
GTGGAGAAAG TGGTCGTTTT TCATGAATAC GTACGATAGC ATCCCCTAGG AGATGAGCGA	5400
TTGAAATCTG CTCAATCTTA TCAATCAAAC GCTCTTCTGG CAGATAGATG GTATCCAAAA	5460
CAACCAATTT CTTAATAGCT GATTTTTGGA TATTGTCCGT AGCAGGACCA GAAAGAACTG	5520
GGTGCGTACA GCTTGCATAG ACTTCAACAG CACCAGCTTC CGCAAGAGCA TCTGCCGCAT	5580
GACAAATCGT TCCAGCGTA TCAATCATAT CATCAATCAA GATACAAGTC TTGCCTTCAA	5640
CCTTACCGAT GATATTCATA ACTTCACTAG TATTCATCTT ATCAACGCTA CGACGTTTAT	5700
CAATAATAGC GATAGATGTT TTCAAAAAT CTGCCAACTT ACGAGCACGA GTCACCCCTC	5760
CATGGTCCGG GCTGACAACC ACATAGTCAG AACCAACCAT ACCACGACGC TCAAAATAAT	5820
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GCGCAGCATG CAAGTCGATG GTCAATAAAC GATCCACTCC AGCTACTTCA AGCATATTTG	5940
CGACAAGTTT TGAAGTGATT GGCTCACGCG CTCTCGCCTT TCTATCCTGA CGTGCATACC	6000
CATAGTAAGG CATGACAACA TTGACAGATT CTGCACTCGC ACGTTTCAA GCATCTACCA	6060
TAATCAAAAT TTCAAGCAGA TTGTCATTTA CAGGCCAACT AGTTGATTGT AAGATAAAGA	6120
CGTGTTCCTT ACGGATTGAT TCTTCAATGT TGACCTGAAT CTCTCCATCT GAAAATTGGC	6180
GAACACTTGA TTTCCCCAAC TCTATCCCAA TCTCCTGCGC CACACGTTCT GCCAATTCTT	6240
TATTAGAAGA AAGGGCAAAC AGCTTTAAAT CAGAAAAAGA CATGATTTC TCCGGTATAT	6300
ATGTATAACT TGTGCTTTTC ACAAGATTTT CCATCTACCA TTGTAGCGCT TTTTGCCTA	6360
TTTTTCAATC AAAAATAAAA GAAGGGCACC ATATTGTAC CCTTGCATCA TTCTTTTGAA	6420

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AAATATTCTA	GGTCATCAAC	TCATTGTGTT	TCTCAACAAA	GCAATAAGCA	TGATAAAAAC	6480
CATAGAGAGC	AATAGCCGTA	ACCACTGGAA	TCGCTAAAGG	CAACTCTGTT	TCCAACCTCA	6540
CAAAAGGAGA	GTTAAACAAG	AAGTGAGTTC	CCAAGGCTAA	ACCTAGAAAA	ATAAGGCCCT	6600
GTTTCTTGCC	AACCTTCTGT	CCTTTATAGG	CTCTGTAAAG	CAAGTAAACA	CCTACTACAG	6660
CTAGACCTGA	AAAAGTCCAG	TGAGAGGCAA	TTCTTGAGAT	GATACGCTCT	AAAATTCGCG	6720
AAATAGTAAA	GTCAAAGCCC	TCTGGCAAAT	CCGTACGAAT	ATAACCAATA	TCCTTAATCA	6780
TTTGGAATCC	CAAACCGGAA	GCAATTCCAA	GTAAAAACAA	AGATTTTAAT	TTTCGCACAG	6840
GAATCAAAGC	CAAAACAAAA	ACAAGTGACA	ATAATTTCAA	GGGTTCTTCT	ACCAAAGGAG	6900
CCGCAATAGC	ACTTTCAAAG	GCATTTAAAA	ATGGACTATC	TGGGAAAAGA	ACCCCCAGTA	6960
AATCATGGAT	ATAAGTATTA	GCAAACTAG	ACAACCAGCC	TGAAAGGAAC	ATCCCTCCCA	7020
ATAAAGACAG	AATCAAAACC	TTCTTTGGCA	ATTCCCATT	TTCCCAATAC	GGAAGAGAAA	7080
ATAAAGAGCC	GGAATCATGT	AAAAGAGAGC	TAGAAAGATA	GAAACTCCCA	TTAGTCCATA	7140
TTCCGCACCT	GACCTCGAAC	CGTCCGTATA	GTAGATGGTT	TCATACTGTA	AACCAATACA	7200
TAGCAATAAA	ATAAAAATAA	ATAAAATATT	GCTTTTCTTC	ATACACTTTC	TTTCTAAATG	7260
AAGTATTTAT	AATTCTACGA	CTGTCATACT	TCCTGTATCA	ACATTGTAAA	TGGCACCAGA	7320
GATAATGACA	TCGTCTGGTA	TTAGGGGAGA	CTCGATAAGC	AGTTGCATAT	CCTCGCGTAC	7380
ACTCTCTTCT	ATATCTTGGA	AGGGCAAGAA	GTCTCTGTCT	GACACATCGA	CACCCAATTC	7440
TTCTTTCAAA	TACTCCTGAA	AAGGTTCAAT	TTCAAAGGTC	TGAGCACCAC	AGTCTGTATG	7500
ATGCAATACC	ACAATTTCTC	TTGTCCCCAT	TTGTTGCTGG	GAAATAACTA	GAGAACGAAT	7560
CATATCCTCA	GTCACGCGAC	CACCTGCATT	CCGCAAAATA	TGAGCATCCC	CAAGTGCCAA	7620
ACCTAGAGCT	TGCGCAACGT	GCAAACGTGA	GTCCATACAG	GTCACAATGG	CTACTCTGGT	7680
TTTAGGTTTA	AGTGGCAGAT	TTAACTGCCC	ATGTAGGGCA	ACATAAGCCT	GATTGGCTTG	7740
CATAAACTGT	TCAAAATACG	ACACGATTCC	CTCCTTGAAA	ATTTGATAGT	CAAATATTTC	7800
TCCTATCTTA	TCATTTTTAA	GAGAATTTGT	CACGGATTAT	GCAAAGACCT	TTTTCAAGAC	7860
TTCTGAATC	GTTGTCACGC	CAATGACCTG	AATTTCTTCA	GGCAGAGTGA	TTCTGTCAA	7920
GGAATTCTTA	GGTACATAAA	TCTTAGTAAA	GCCCAGTTTA	GCAGCTTCGT	TGATGCGTTG	7980
CTCAATACGA	TTACGCGGCC	GAATCTCTCC	TGTCAAGCCC	AGTTCTCCGA	CAAAACATTC	8040
CTGAGGATTA	GTTGGCTTGT	CTTTGTAGCT	CGAAGCAATA	GCAACTGCAA	CAGCCAAGTC	8100
AATCGCAGGT	TCATCCAATT	TAACACCACC	AGCAGATTTG	AGATAGGCAT	CCTGATTTTG	8160
CAAGAGAAGC	CCTGCCCCGT	TTTCCAAAAC	AGCCATAATC	AAGCTAGCAC	GGTTAAAATC	8220

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AAGTCCTGTC	GTAGTACGCT	TGGCATTTC	AAACATGGTC	GGTGTTACCA	AAGCCTGAAC	8280
CTCCGCCAAA	ATCGGACGCG	TCCCTTCCAT	GGTTACAACG	ATGGAGGAAC	CAGTCGCCCC	8340
ATCCAAACGC	TCTTCTAGGA	AAACTTGACT	CGGATTGAGT	ACCTCAACCA	AGCCGCCCGA	8400
CTGCATCTCA	AAAATCCCAA	TCTCATTAGT	GGAACCAAAA	CGATTTTGA	CCGCTCTCAA	8460
AATACGAAAG	GTGTGGTGAC	GCTCCCCCTC	AAAGTAAAGC	ACCGTATCCA	CCATATGCTC	8520
CAACATACGA	GGCCCAGCCA	AGGTTCCCTC	TTTGGTCACA	TGACCTACGA	TAAAGATGGC	8580
AATGTTATTG	GTCTTGGCCA	ACTGCATGAG	TTCAGCGGTC	ACTTCACGCA	CCTGAGAAAC	8640
AGACCCCTGC	ACCCCTGAAA	TCTCAGGAGA	CATGATGGTC	TGGATGGAAT	CAATAATGAG	8700
AAAGTCTGGC	TGGATACGCT	CCACTTCTGC	ACGAACACTC	TGCATATTGG	TCTCTGCATA	8760
GAGATAAAAC	TCACTATCAA	TATCACCTAA	GCGCTCTGCA	CGTAGTTTAA	TCTGCTGGGC	8820
AGACTCCTCC	CCACTGACAT	AGAGAACTGT	CCCCACTTGG	GACAACTGGG	TTGAGACTTG	8880
TAGGAGAAGA	GTTGATTTCC	CAATCCCAGG	ATCCCCACCG	ATAAGGACGA	GACTTCCTGG	8940
TACCACTCCG	CCTCCAAGCA	CACGGTTGAA	TTCCTCCATC	TCCGTCTTGG	TTCGATTGAC	9000
ATTGATGGAA	GTCACCTCAG	CTAGTTTCAT	GGGCTTGGTT	TTCTCACCTG	TCAAGGACAC	9060
ACGCGCATTC	TTAACTTCGG	CAACCTCAAC	CTCTTCCACA	AAAGAAGACC	AAGACCCACA	9120
GTTGGGGCAA	CGTCCCAGAT	ATTTAGGGGA	ATTATACCCA	CAATTTTGAC	ATACAAATGT	9180
CGCTTTTTTC	TTTGCGATGA	CAAACCTCTT	TCTATATCTC	TAACTCACAC	TCAATCACTT	9240
GGCAAAAATC	AATCTTCTCA	TTTGGCACAA	ACTGGCCCAT	GAGCATTCCA	TGAGCAACAA	9300
CTACCACAGT	CTGATGTTCT	CGATACTTAG	ACATACATTC	TAGAAACCGA	GACTTCATTT	9360
CCGTAGCTGT	CTCATATTGA	ATAGGACTAT	TAGGAAGCAA	CTCCCCCTTG	TTTTCTAAAA	9420
ACAGTCTTCT	AGCTGTTTCA	AAGTTTCTA	TTCCTGTTTT	ATAGACCTGC	CATTCATGTA	9480
ATAAAGGCTC	TACTCTTAAA	GGAAGACCCG	TAGCACAGAC	CACATACGAA	GCCGTTTCTA	9540
AAGCTCTTGT	GACTGCAGAA	GATACGATTA	TTTCAGCTGA	CGAGAGTAAA	GGATTTTTCG	9600
TCAATTTCTG	GACTTGCTGC	CGTCCCATCT	CAGACAAGGG	TGCCAAATCT	ATCCCAAATC	9660
CTATATAAGA	ACGCTCCTCT	AACTCACGGT	AATCTGGCTC	CCCATGACGT	ACAAAGATAA	9720
TCTTCATTCT	AGTGCCCTGT	CGATCCAAAT	CCACCAGTTC	GAACGCCATC	AGCTGCATCT	9780
CCATCTGCAA	TTAAGAAAGT	AGCAAAAACA	GCCTGGACAA	TACGCTCCCC	AACTTCAAGA	9840
ACAACCTCTT	GGTCTGTGAT	ATTCTTCATC	TGCGCAAAAA	TATGCCCTTC	ATTTCAGGA	9900
TTCCATAAT	AATCCCCATC	AATGACTCCA	ACTGAGTTAA	TTAAAACCAA	GCCCTTCTTA	9960

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CGAGGATTTG AAGAACGATC ATAGAGGTAG AGAACCTCAG TCGGCTGCAT ATAAGCCTTA	10020
ACCCCTGTCTG GAACCAAGAC AATCTCTCCT GGCGCAACAA CTGTACGCAC AGCAACCTTT	10080
AAGTCGTAAC CAGTCGCATG CGCTGTCTCA CGCTTGGGCA ATAAATTTTC ATCTGTAAAA	10140
CTCGAAACCA ATTCAAAACC ACGAATTTTC ATAATTTTCT CTTTCTATT ATCATTATT	10200
CTAGATTATT CTATACTTAT TTA	10223

(2) INFORMATION FOR SEQ ID NO: 74:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 16535 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: double
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 74:

TGGTTCGTGC CTTATCGGCG CCTTGTCTTG CTTGCCATGG CTACACCAAC TATCTCATCC	60
GACGAAAGTA CACCAACCAC TAACGAACCC AACACAGAA ATACAACCAC CCTTGCCCAA	120
CCTCTTACTG ATACAGCAGC TGGCTCTGGT AAGAACGAAA GTGATATTTT TACACCTGGA	180
AATGCAAACG CTTCCCTAGA GAAAACAGAA GAAAAACCTG CTGCAAGCCC AGCCGATCCA	240
GCACCACAAA CTGGACAAGA TCGTTCAAGT GAGCCAACTA CTTCTACTAG TCCAGTAACA	300
ACTGAACTA AGGCAGAAGA GCCCATCGAA GATAACTACT TCCGTATCCA TGTCAAAAAA	360
CTTCCTGAAG AAAACAAGGA TGCTCAAGGA CTATGGACTT GGGACGATGT TGA AAAAACA	420
TCTGAAAAC TGGCAAACGG AGCTTTGTCC TTCAAGGATG CCAAGAAAGA TGA CTACGGC	480
TATTACCTAG ATGTCAAATT AAAGGGAGAA CAAGCCAAGA AAATTAGCTT CCTCATCAAC	540
AATACAGCTG GAAAAATCT AACCGGCGAT AAATCTGTAG AAAA ACTAGT TCCAAAAATG	600
AACGAAGCTT GGT TAGACCA AGATTACAAG GTTTTCTCTT ACGAGCCACA GCCTGCAGGA	660
ACTGTTCCGG TCAACTACTA CCGCACAGAT GGCAACTATG ACAAGAAATC TCTCTGGTAC	720
TGGGGAGATG TGAAAAATCC AAGTAGCGCT CAATGGCCTG ACGGAACAGA CTTTACGGCT	780
ACAGGCAAAT ATGGCCGCTA TATCGACATT CCTCTTAATG AAGCCGCAAG AGAATTTGGA	840
TTTTTATTAC TAGATGAGAG CAAACAAGGA GACGACGTGA AAATCCGTAA AGAAAATTAT	900
AAGTTCACAG ATTTGAAAA TCATAGCCAA ATTTTCCTAA AAGACGATGA TGAATCGATT	960
TACACAAATC CATACTATGT CCATGATATC CGTATGACAG GAGCCCAACA CGTAGGCACT	1020
TCTAGCATTG AAAGTAGCTT TTCAACACTT GTCCGTGCTA AAAAAGAAGA TATCCTCAA	1080
CACTCCAACA TCACTAATCA CCTAGGAAAC AAGGTA ACTA TTACCGATGT TGCAATCGAT	1140

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GAAGCTGGTA AGAAAGTGAC CTACAGCGGA GATTTCTCTG ACACAAAACA TCCTTATACT	1200
GTTAGCTACA ATTCCGACCA ATTCCTACC AAAACAAGCT GGCGCCTGAA AGATGAGACA	1260
TACAGCTATG ATGGCAAACT GGGAGCTGAC CTAAGAAG AAGGAAAACA AGTTGATTTG	1320
ACCCTTTGGT CACCAAGTGC TGATAAGGTT TCTGTTGTTG TCTACGACAA GAATGACCCT	1380
GACAAAGTAG TTGGAAGTGT CGCTCTTGAA AAAGGGGAAA GAGGAAGTTG GAAACAACT	1440
CTAGACAGCA CAAACAACT CGGAATCACA GATTTCACTG GCTACTATTA TCAATACCAA	1500
ATCGAGCGTC AAGGTAAAAC TGTTCTTGCA CTCGATCCTT ACGCTAAATC TCTTGCTGCT	1560
TGGAATAGCG ACGATTCCAA GATTGACGAT GCCCATAAAG TGGCTAAAGC CGCCTTTGTA	1620
GATCCAGCTA AACTCGGACC TCAAGACTTG ACTTATGGTA AGATTCACAA TTTCAAGACT	1680
CGTGAAGACG CCGTTATCTA CGAAGCTCAT GTGCGTGATT TCACTTCAGA TCCTGCCATT	1740
GCAAAAGACT TGACCAAACC ATTTGGGACT TTTGAAGCCT TCATTGAAAA ACTAGACTAT	1800
CTCAAAGACT TGGGTGTAAC CCATATCCAG CTCCTTCCAG TCTTGTTCTTA CTACTTTGTC	1860
AATGAATTGA AAAACCATGA ACGCTTGTCT GACTACGCTT CAAGCAACAG CAACTACAAC	1920
TGGGGATATG ACCCTCAAAA CTACTTCTCC TTGACTGGTA TGTACTCAAG CGATCCTAAG	1980
AATCCAGAAA AACGAATCGC AGAATTTAAA AACCTCATCA ACGAAATCCA CAAACGTGGT	2040
ATGGGAGCTA TCCTAGATGT CGTTTATAAC CACACAGCCA AAGTCGATCT CTTTGAAGAT	2100
TTGGAACCAA ACTACTACCA CTTTATGGAT GCCGATGGCA CACCTCGAAC TAGCTTTGGT	2160
GGTGGACGCT TGGGGACAAC CCACCATATG ACCAAACGGC TCCTAATTGA CTCTATCAAA	2220
TACCTAGTTG ATACCTACAA AGTGGATGGC TTCCGTTTCG ATATGATGGG AGACCATGAC	2280
GCCGCTTCTA TCGAAGAAGC TTACAAGGCT GCACGCGCCC TCAATCCAAA CCTCATCATG	2340
CTTGGTGAAG GTTGGAGAAC CTATGCCGGT GATGAAAACA TGCCTACTAA AGCTGCTGAC	2400
CAAGATTGGA TGAAACATAC CGATACTGTC GCTGTCTTTT CAGATGACAT CCGTAACAAC	2460
CTCAAATCTG GTTATCCAAA CGAAGGTCAA CCTGCCTTTA TCACAGGTGG CAAGCGTGAT	2520
GTCAACACCA TCTTTAAAAA TCTCATTGCT CAACCAACTA ACTTTGAAGC TGACAGCCCT	2580
GGAGATGTCA TCCAATACAT CGCAGCCCAT GATAACTTGA CCCTCTTTGA CATCATTGCC	2640
CAGTCTATCA AAAAAGACCC AAGCAAGGCT GAGAACTATG CTGAAATCCA CCGTCGTTTA	2700
CGACTTGGA ATCTCATGGT CTTGACAGCT CAAGGAACTC CATTTATCCA CTCCGGTCAG	2760
GAATATGGAC GACTAAACA ATTCCGTGAC CCAGCCTACA AGACTCCAGT AGCAGAGGAT	2820
AAGGTTCCAA ACAAATCTCA CTTGTTGCGT GATAAGGACG GCAACCCATT TGAATATCCT	2880

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TACTTCATCC	ATGACTCTTA	CGATTCTAGT	GATGCAGTCA	ACAAGTTTGA	CTGGACTAAG	2940
GCTACAGATG	GTAAAGCTTA	TCCTGAAAAT	GTCAAGAGCC	GTGACTATAT	GAAAGGTTTG	3000
ATTGCCCTTC	GTCAATCTAC	AGATGCCTTC	CGACTTAAGA	GTCTTCAAGA	TATCAAAGAC	3060
CGTGTCCACC	TCATCACTGT	CCCAGGCCAA	AATGGTGTGG	AAAAAGAGGA	TGTAGTGATT	3120
GGCTACCAAA	TCACTGCTCC	AAACGGCGAT	ATCTACGCAG	TCTTTGTCAA	TGCGGATGAA	3180
AAAGCTCGCG	AATTTAATTT	GGGAAGTGCC	TTTGACATC	TAAGAAATGC	GGAAGTTTGT	3240
GCAGATGAAA	ACCAAGCAGG	ACCAGTCGGA	ATTGCCAACC	CGAAAGGACT	TGAATGGACT	3300
GAAAAAGGCT	TGAAATTGAA	TGCCCTTACA	GCTACTGTC	TTCGAGTCTC	TCAAAATGGA	3360
ACTAGCCATG	AGTCAACTGC	AGAAGAGAAA	CCAGACTCAA	CCCCTTCCAA	GCCTGAACAT	3420
CAAAATGAAG	CTTCTCACCC	TGCACATCAA	GACCCAGCTC	CAGAAGCTAG	ACCTGATTCT	3480
ACTAAACCAG	ATGCCAAAGT	AGCTGATGCG	GAAAATAAAC	CTAGCCAAGC	TACAGCTGAT	3540
TCACAAGCTG	AACAACCAGC	ACAAGAAGCA	CAAGCATCAT	CTGTAAAAGA	AGCGGTTCGA	3600
AACGAATCGG	TAGAAAATC	TAGCAAGGAA	AATATACCTG	CAACCCACAG	TAAACAAGCT	3660
GAACTTCCAA	ATACAGGAAT	CAAAAACGAA	AACAACTCC	TATTTGCAGG	AATCAGCCTC	3720
CTTGCGCTCC	TTGGTCTCGG	TTTCTTACTA	AAAAATAAAA	AAGAGAACTA	AACTAGCCCT	3780
CCTATAGAAA	AATCCCCCAA	GCATTATAGC	TCGGGGGATT	AATTTTGTGA	CAATATTTGT	3840
TGTCCTAATA	AACTTGATTA	GGATTTTTTA	TTAAGCCTCT	TTCATAGCAA	AATAAGCTCG	3900
TACTTTGGGT	GCAACTTGTG	TTCCGAAGAG	TTCAATAGCT	CTCAGAACCT	GGTCATGAGG	3960
CATAGAACCA	AGCGGTAGAT	GAAGCATGAA	GCGGTCCAAT	CCTAAATCCT	CTATCATGCG	4020
AATCAATTTT	TCGGCCACCT	GATCTGGATT	GCCAACAAAC	ATGGCGCCAT	TTGGCCCTAC	4080
CTGCTCCAAA	TATTGCTCAT	AACGCAATTC	CTGCCAGTGC	GGACGGTCTT	TGGAAATAGC	4140
ATCCACCACT	TGCTTAGTCG	GATGGAAATA	ATCTTTCACC	GCCTGCTCAC	CATCTTCCGC	4200
AATCCACCCC	CAAGAATGGG	CTCCCACCTT	CAAGTCTTTG	TCAGCATGGC	CCCTTCGCTT	4260
CCAATCTCAC	GATAAGCCTG	AATCAACTTT	TAAAAATAAC	GTGGATTACC	ACCAATAATA	4320
GCATATACAA	TCGGTAGACC	AGCCTGAGCA	ATCTTCACTG	TTGATTGAC	ATGACCACCT	4380
GTAGCTATCC	ACAAGGGCAA	TTTGTCTTGA	ACTGGACGAG	GATAAACTTC	TTTACCAGCA	4440
ATCGTTTGAG	TCAATCGACC	TTGCCAGTCT	AACCTGGTCT	TTTCATTGAC	TAAGTGAAGC	4500
AAGTCTAATT	TCTCATCAAA	AAGAGAGTCG	TAGTCTTTCA	AGTCATAACC	AAACAGAGGG	4560
AAAGATTCCG	TGAAAGAGCC	CCTTCCAGCC	ATAATCTCCG	ATCGTCCATT	TGACAAAGCA	4620
TCGATAGTGG	CATACTGTTG	GAACAAACGA	ATCGGGTCCA	TGCTTGACAG	AATGCTGACT	4680

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GCACTGGTCA AACGGATTTT CTTGGTATTG ACTGCCCCAG CGGCCAGAAC AATCTCTGGG	4740
GCTGATACTG CAAAATCCGC CCGATGGTGC TCACCAATCC CATATACATC CAAACCAACC	4800
TTGTCAGCCA GCTCAATCTC TGCCACCAAC TGGCGAATGC GTTCAGCATG ACTGTAAGTT	4860
TGTCCAGTCC CTTCAAGCTC CGTTATTTCC CCAAATGTTG AAATTCCCAA TTCTACCATT	4920
GTGATTCTCC TTATCTATCT CTGTACTTCA ATTTGAAAAA TTATTCTAAC ACGAATCTTG	4980
AGTACAAGCA ACCGATTTGC TCATTAGAAA AAGCCTAGAT AACTAGACTT TTTTAGCTTA	5040
TTCTACCGTT ACTGACTTGG CAAGGTTACG TGGTTTGTC ACATCGAGGC CACGGTGGAG	5100
GGTTGCAAAG TAAGCGACTA ATTGCGTTGG TACGACCATT GAAATTGGTG AGAGGTATGG	5160
ATGTACGGTC GTAAGGACGA TATCGTCGGT ATCTTTGGCT ACATTCTCTT CTGCGATAGT	5220
GAGGACTTTG GCACCACGGG CTGCGACCTC TTGGATATTT CCACGAGTAT GATTGGCAAG	5280
AACTGGATCT GACAAGAGAG CCAAAACAGG CGTTCCTTCT TCAATCAAGG CAATGGTTCC	5340
GTGCTTGAGT TCTCCTGCAG CAAAGCCTTC AACTGGATA TAAGAAATCT CTTTGAGTTT	5400
GAGACTTGCT TCCATGGCTA CGTAGTAATC TTGACCACGT CCGATGTAAA AGGCGTTACG	5460
AGTTGTTTCA AGAAGTTCAC GAACCTTGAC TTCAATGGTT TCTTTCTCTG AAAGAGTTGA	5520
TTGATAGAC TGAGCTACGA TTGACAATTC ATGAACCAGG TCAAAGGCTT GCGCTTTAGC	5580
ATTACCATTT GCTTCTCCGA CTGCTTTTGC AAGGAAGGCA AGGCTGCGA TTTGCGCTGT	5640
ATAGGCTTTA GTTGATGCCA CGGCAATTTT AGGACCTGCG TGAAGGAGCA TGGTATAGTT	5700
GGCTTCACGT GAGAGGTTG AACCTGGAAC GTTTGTCACT GTTAAGCTTG GAATTCCCAT	5760
TTCATTAGCC TTGACCAAAA CTTGACGACT ATCCGCTGTT TCACCAGATT GGCTGATAAA	5820
GATGAAGAGT GGTTCCTTGC TGAGAAGTGG CATACCGTAG CCCCCTCAG ATGAGATTCC	5880
AAGTTCAACT GGTGTATCTG TCAATTCTTC CAACATTTTC TTAGAAGCAA ATCCTGCATG	5940
GTAAGATGTT CCAGCTGCAA GGATGTAGAT GCGGTCTGCG TCTTGAACAG CCTTAATGAT	6000
ATCTGGGTCT ACGACAACCT GACCAGCCTC ATCTGTGTAG GCTTGGATGA GTTTCCGCAT	6060
AACAGTTGGT TGCTCGTCAA TTTCCTTGAG CATGTAGTAA GGGTAAGTTC CCTTACCGAT	6120
ATCTGACAAG TCAAGTTCAG CAGTGTAGCT AGCACGCTCA CGACGATTTT CATCATAGTC	6180
TTGAACTTCC AACTATCAG CCTTGACGAT TACCAACTCT TGGTCATGGA TTTCCATGTA	6240
TTGGTTAGTT TCACGAATCA TAGCCATGGC GTCTGAGCAG ACCATGTTAT AGCCTTCTCC	6300
AAGACCAATC AAAAGTGGTG ATTTATTTTT AGCTACGTAG ATGACTTCAG GATCTTGTGA	6360
GTCAACCAAG GCAAAGGCAT AAGAACCACG GATGATGTGA AGGGCTTTTT TGAAGGCTTC	6420

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AAGAACTGAG	AGCCCTTCTT	CTTCCGCAAA	TTTTCCAATC	AAATGAACGG	CTATTTTCAGT	6480
ATCTGTCTGC	CCCTTGAAGT	GGTGACCTGC	AAGGTATTCT	TCCTTGATTT	CAAGATAGTT	6540
CTCAATCACC	CCATTATGCA	CCAAGACAAA	ACGTTCCGTC	TCAGAGCGGT	GTGGGTGAGC	6600
ATTGTCCTCA	GTTGGTTTTTC	CGTGAGTAGC	CCAACGAGTA	TGTCCGATAC	CAGTTGTTCC	6660
CTCAACACCA	GCTGTCTTGG	CAGACAATTC	TGCAATACGA	CCAACCGCCT	TCACCAAATG	6720
GTTATCAGCA	CCATCTAGGA	CAAAAATTCC	CGCAGAATCA	TAGCCACGGT	ATTCAAGCTT	6780
TTCAAGCCCT	TGAATCAAAA	TATCAGTTGC	ATTTGTGTTT	CCAACAACAC	CAACAATTCC	6840
ACACATAGTA	TATACGACAC	AGGCAAGCTG	TGCTTTCTCC	TTAAAATTGG	TATAGTCTAA	6900
TTCATCTTTT	ATAGAATCAG	CAAAAACAGT	ATATACTTGT	TTCTTTCACT	TGTCAAGAGT	6960
AAAAATTGGT	ATAGTTCAAA	TTAAGCTCCT	GTAAGCATAA	AACTCTGAC	CGATTGGGAT	7020
AATCAGTCAG	AGTCCTTTT	AAAATCCATT	ATTATCGCTT	AATTCTTTGA	ACCAGTGGCC	7080
TGATTTCTTC	AGACGACGTT	CTTGCGTTTC	CAAGTCTAAT	TCGACCAAAC	CATAGCGATT	7140
TTTATAGCTG	TTGAGCCATG	ACCAGCAGTC	AATAAAGGTC	CAAATCAAGT	AGCCCTTACA	7200
GTTGGCACCA	TCTTCAATGG	CACGGTGAAG	TTCACGAAGA	TGACCTTTTA	CAAAGTCAAT	7260
ACGGTAATCA	TCTTGAATCA	TTCCATCTTG	ACGGAATTTT	TCTTCCCCTT	CAACACCCAT	7320
ACCATTTCTCA	GTCAACATCC	ACTCAATATT	GCCATAATTT	TCCTTGATAT	TTTGGGCGAT	7380
GTCATAAATC	CCTTGCTCAT	AAATCTCCCA	ACCACGGTGA	GAATTGATTT	TACGTCCAGG	7440
CATCACATAA	GGCTCGTAAA	AATGTTCTGG	TAAGAGTGGG	CTCTCTGGAT	GCTTAGCAAA	7500
TCGAGGAGCC	ATAACACGCA	AAGGTTGATA	GTAGTTCACA	CCAAGGAAGT	CCACCGTATT	7560
ATCACGAATG	AGTTCCAAC	CTTCCTCTGT	AGCATCAGGT	AAAAGACCGT	GTTTCATGCA	7620
GATTTCTACC	AACTCCTGTG	GATAAGTCCC	CAAGACAGAT	GGATCTAAGA	AAGATTGGGC	7680
CTGAAAAAGG	GCCGCAATAC	GAGCTGCCTT	GACATCAGCA	GGATGCTGGC	TACGTGGATA	7740
AGCCGGTGTC	AAGTTGAGGA	CAATCCCAAT	CTTGGAATCA	GGCAAAAGTT	CATGGCAAGC	7800
CTTAACAGCC	CGGCTGCTGG	CCAATTGTGT	ATGATAGGCT	ACCTTAACAG	CTGCCTCTGC	7860
ATCCACCTTA	TGTGGATAAT	GGGCATCATA	AAAATAACCA	AATTCTACAG	GAACGATGGG	7920
CTCGTTAAAG	GTAATCCATT	GATCCACTAA	ATCTCCATAA	GTCTCAAAAC	AAAAACGAGC	7980
ATAGTCTTCA	TAGGCTGAGA	CTGTGCGCTT	ATTTTCCCAA	CCATCACCAT	CCTCTTGAAG	8040
GGCAAAAGGT	AAATCAAAAT	GATAGAGATT	GACTAACAGA	CGAATTCCTT	TAGCCTTAAT	8100
AGCCTCAAAG	ACCTTACGAT	AAAAATCCAC	ACCTTGAGTG	TTGACTTTTC	CACAGCCTTG	8160
TGGAAAAATC	CGTGACCACT	GAATAGAAGT	CCGAAAGGCT	GTGTGACCAG	TCTCTAACAA	8220

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AAGCTCAATA TCCCGCTCCC AATTTTCATA AAAAGTCGAT GTCTTATCTG AACCAATCCC	8280
ATTATAGTAA CGATTTGGCT CCACTTGGAA CCAGTAATCC CAGAGATTGT CTCCCTTACC	8340
GTCACCAGCT ACACGTCCTT CTGTCTGCGG TCCAGAAGTA GAGGATCCCC AGACAAAATC	8400
CTTTGGAAAT CTTAGCATAC ATTTACCTCT TTATCTACTC ATTTCTCCCA TTATACAGAA	8460
AAAACAAGGT AAAAATACT TACATTTTTT CCTTGTTTTT CTTCTGATTA TAGTTTTAT	8520
TTCTTGCTTA GGATTTCAAG CGTTTCAAGC ACGTTATCTG CATGAACCTC AATGGTGTC	8580
CCAGTTGCCT TGATCTTAAC TTCTACAATG CCATCGGCCG CTTTTTTACC AACAGTGATA	8640
CGGATTGGAA GACCAATCAA GTCATATCG CTAAATTTAA CACCGACACG TTCGTTACGG	8700
TCATCTGTCA AGACTTCATA ACCAGCTCCC ATCAAGCTTG CTTCAAGTTT TTCTGTCAAG	8760
GCTTGCGCTT CTTTCATCCTT GACATTGACA GTAATCAAAT GCACATCAA TGGTGCCAAT	8820
TCTTTAGGGA AATTGATTCC CCAAGCGTAA CGGTATTAC CTTTTGGCGT TTTGTTAACA	8880
AAGAGGCGAG CGTGTGCTC CATCACTGCT GAAAGAAGAC GGCTGACACC GATACCGTAA	8940
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GCTGAATAGC GAGTTCCGAG TTTGAAAATA TGACCGATCT CAATACCACG CGCAAAGTTA	9060
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CCGACAACTG CATTGCGAAC ATCTTGTAAC TTACGATCTG CAATAATTTT AATATTCTCT	9240
GGCAAACCAA CTGGTCCAAG TGAACCAAAT CCTGCTTGAA CAACATTCCG CACTTCTTCT	9300
TCGCTAGCAA CGTCAAAGAA ATCTGCTCCC AAGTGATTTT TCAACTTGAC TTCGTTGAGT	9360
TGGTCATTTT CAACTAGAAG GGCTGCAACA AGCTCACCAT CTGCAATGTA GAAGAGGGTT	9420
TTAATCGTTT GTTCTTCTGG AACATTGAGG AAGGCTGCAA CTTTCATCAAT TGATTTAACA	9480
TCTGGCGTTG CAACACGAGT AACTTCTTCT TCAGCGACAA CACGGTTGCT TGGTTTGTAC	9540
TCGTTTGTG CCATTTCTAA GTTAGCTGCA TAGCTAGACT CACTTGAGTA AGCAATGGTA	9600
TCTTCACCAG AGACTATCCA TTTGAGCAAT TCTGCCTTGA TTTCTTCTTG CACTTCTGCA	9660
GGAAATTCGT CAAATGAGGC AACTGACTTG TCCAAGACAA CCCAGCGGTC AAGGTCTGTA	9720
CGAGCAGATG TAATGGCCAT AAATTCTTGG CTATCCTTAC CACCCATGGC TCCACCGTCA	9780
CCAATAATAG CCTTGAAGTC TAAACCACTA CGAGTGAAAA TACGCTCATA GGCTGCTTTG	9840
TACTCATCAT AAACACTATC CAAACTATCA TAGTTAGCGT GGAAACTATA AGCATCCTTC	9900
ATGATAAACT CACGTGTACG AAGAAGTCCA TTACGCGGGC GTTTTTCATC ACGATACTTG	9960

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GGCTGAATTT	GATAAAGGTT	GAGTGGCAAT	TGCTTGTAAG	ATTTAACAGA	ATCACGGACA	10020
ATAGCTGTAA	AGGTTTCTTC	GTGAGTTGGA	CCTAAGATAA	AGTCTGATTT	TTCACGGTTT	10080
TTTAGTTTGT	AAAGGTCTTC	ACCATAGGTT	TCGTAACGAC	CTGATTACAG	CCACAATTCT	10140
GCACTAAGAA	GGGCTGGAGC	CAACATCTCA	ACAGCACCAA	TCTTTTCGAA	TTCTTGGCCG	10200
ATGATGTTTT	TAGCTTTTTC	AATCACACGG	TTGGCAAGTG	GTAGATAAGA	ATAAACACCT	10260
GCTGAAACTT	GGCGAACATA	ACCAGCACGC	AACATAAGAG	CATGGCTGAT	AACCTGAGCA	10320
TCGCTTGGCA	TTTCGCGAAG	CGTTGGGATA	GGCATTTTAC	TTTGTTTCAT	AATATTCCTC	10380
GATTATCTAA	AAAAGAGTCG	CATAATGTCA	TTCCAAGTCA	CAGCAATCAT	CAAGACAACC	10440
ATGATGACCA	CTCCGGCCAA	GGTGACATAG	GTTTCAATTT	CTTGTTTCAA	TGGTTTGCCG	10500
CGGATGGCTT	CTAGGATATT	GAGCACAATC	TTACCACCAT	CCAAGGCTGG	AATCGGAATA	10560
AGATTAAAAA	TCCCAATATT	GATGGAAATC	ATTGCCAAGA	AGTACAAGAT	ATTTTCAATT	10620
CCATTTTTAG	CAGCATCACT	ACTTGCCTTA	AAGATAGCAA	CAGGTCCACC	CAACTTGTTT	10680
AAATCTGGTT	GGAAAATCAG	ATTTTTCAGA	GCTGAGAGAA	TTCGGAGAGC	TGAGTCAGCA	10740
GCAGTTGTAA	AACCACCTAC	AAACATGGAT	AGAAAATCTG	ACTTAACCCC	CGGTTGAACA	10800
CCTAGAAGGT	AACGACCTTG	ACTATCTTTG	GGTGTAACAG	TGACTTGTTT	GTCACTCCCC	10860
TTTTCAGAAA	TAGTCACATC	CAAAGTCGGT	GCCGTCTTAT	CTTTGGTTTC	TGTTTCCACA	10920
GCTTGGATCA	AGCTTTCCCA	GTTGCTAACC	TCATGTGAGC	CAATCTTGGT	AATTTGTGCC	10980
ATTTCTGGTA	CTCCTACCTT	GGCCAAGGCA	CCTTGGGGCA	TGATATGGAA	CTGATTGGTA	11040
TCAACATCTC	TGACACCACC	CTGCATAAAG	ATTAAAACCC	AAAAAACAAC	GACACCTAAG	11100
ATAAAATTGT	TCATAGGACC	TGCAAAATTG	GTAATCAGTT	TGCCCCAGAT	AGTCGCATTT	11160
TGATATTGAA	CATCTAAAGG	TGCAATCCGA	ACCTCAGTAC	CATCTGCTTC	CACAACCGTT	11220
GCATCGTGAT	CCACTGCAAA	TGTTTTTTCT	TCTTCCAGAA	CCAATCCTTT	GATAAAGAGC	11280
TTGTCTTCAA	AATCAAACCTG	GGTCACCTGC	ATAGGGAGGG	CTGTTTGATC	CAATTTTTTA	11340
CCTGAGAGAT	TGATGCGTTT	AACCTTACCA	TCATCAGCAA	GTGTCAAAC	AACAGGCGTT	11400
CCTGTCTTGA	TTTCAGTTGT	ATCATCACCC	CAACCGGCCA	TGCGGACATA	GCCACCCAGA	11460
GGCAAGATTG	GAATGGTATA	GGCCGTTCCA	TCCTTGCCAA	TGTGAGCAAA	AATTTTAGGT	11520
CCCATACCGA	TGGCAAATTC	ACGTACTAAA	ATCCCTGATT	TCTTGGCAAA	GTAGAAGTGA	11580
CCGAACCTCGT	GCACCACTAC	AATAATCCCG	AAAACCAGAA	TAAAGGTTAA	AATTCGGAGC	11640
ATAGCGTTTC	CTCCGTCTTT	TGATTAAAAG	AGTCCAAATA	AGTGCATGAT	TGGAAATACA	11700
AGCAACATAC	TATCGAAACG	ATCCAAAACA	CCACCATGTC	CAGGGATAAA	TTTCCCAGAA	11760

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TCCTTAACAC	CAAAATGACG	TTTGATCGAA	CTTCTAGTA	AATCACCAAA	TTGTCCAGCA	11820
ATGCTAAAGA	AAATAGCAAA	GACTGACATC	TTGTAAATTC	CATATGGAAG	AGCAACTGTA	11880
CTGTCAACTA	TCATAAGGAT	AATGGTTACT	AAAATTGCTC	CTAAAATACC	ACCCAAGGCA	11940
CCCTCAAGGG	TTTATTAGG	CGATACCCTT	GGTGCTAACT	TTCGTTTCCC	ATAGTTCATC	12000
CCAACAAGAT	AGGCACCACT	GTCTGTCGCC	CAGACGATAC	ACAAGGCTAA	GAGAGCCTTG	12060
TCCAAACCTG	CAACACGAGC	ATCTAGTAAA	GCATTAAATC	CAAAGCCCAC	GTAGAAGCTC	12120
ATAGCAAGAG	GGAAAACCGC	ATCCTCAATC	GTATAAGACT	TGCTAAAAAC	GGTCGTTCTT	12180
AACATGATTG	AAATCAAAAC	ACTATAGGCA	ACCACATTCC	CATCAACTGG	CAAAAAAGTC	12240
AGGTAATTCT	CCAAGGGAAT	GGTCAATGCA	AAGGTTGCAA	AGAGGGTCAA	GAGGCCCTCC	12300
ATCGTCATGG	TCTCTAGACC	TCTCATCTTC	AAAAGTTCAT	GCATGGCTAG	CATGGCTATG	12360
ATTCCGATTG	CTATCTGAAG	CAAGAGGCCC	CCAATCATT	AAATTGGTAG	GAAAATAGCC	12420
AGGGCAATCC	CTGCAAACAA	GGTTCTTTTC	TGTAAATCCT	GGGTCATATT	TCCTCCTAAA	12480
CTCCTCCAAA	TCGGCGATGA	CGACGATTAT	AGGCAAGAAT	ACCTTCCTGC	AAGGCCGCTT	12540
CGTCAAAATC	AGGCCATAAG	GTGTCCGTAA	AATAAAGCTC	ACTATAGGCT	CCCTGCCATG	12600
GAAGGAAATT	GCTCAAACGT	AATTCTCCAC	TAGTACGGAT	AATCAAGTCT	GGGTCTCGTA	12660
AGTCCTTAGG	CAAATGCTGA	GTAAAGAGAT	AGTTACCAAT	CAATTCCTCT	GTGATGTCAC	12720
CTGGGTTGAT	TTTGGCATCT	AAAACATCCT	GGGAAATCAA	CTTAAGCGCC	TGTGTAATCT	12780
CAGCACGTCC	ACCATAGTTA	AGAGCAAAAT	TAAGAATCAA	TCCTGTGTTG	TTCTTAGTCA	12840
ATTCCTCAGC	CTTGGTTAAA	GCTTCAAAGG	TTTGCTTAGG	CAGGCGGTCT	GTCTCCCCAA	12900
TCATTTGAAT	CTTAACATTA	TTCGCATGTA	GTTCCGGGAC	ATAATTATCA	TAAAACTCTA	12960
CTGGCAAGTT	CATGATAAAC	TTGACTTCCT	GATCTGGACG	GGTCCAGTTT	TCCGTAGAAA	13020
AAGCATAGAC	CGTAATAACC	TTGACGCCCA	GTTTGTTGGC	TGCCTTGGTC	ACGGTTTGCA	13080
ATGCTTCCAT	GCCCCCCTTA	TGTCCAAAAA	CTCGCGGTTG	CATACGTTTT	TTAGCCCAAC	13140
GGCCATTGCC	ATCCATGATG	ATGCCGATAT	GAGCAGGAAC	CTGTGTCGGA	ACCTCTACTT	13200
CCACAGCCTT	ATCTTTCTTA	AAAAATCCAA	ACATGATCTT	ATTCTTATTC	AAAAATCTAT	13260
CGTTTCATTA	TACCATATTT	CCCCATTTTC	TTCTATCACT	AAGCTATTTA	TTCTCAGGCA	13320
CCAAGCCCAT	TTTTCAAAAA	AATAAGCCGC	CTGATTGGGC	GACTTTATTT	TTATAGGGAG	13380
ATTATTATGA	AAAAGTTTTA	GGAGTTTAAG	TTAAGGTCTT	CTTAACCTAT	GAACTTAGTG	13440
TACACTCCCT	AGCTTAAAGT	TTCCTTAAGT	ATTTTAAAAA	ATCAAATTTT	TCCATTTCTC	13500

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CTGCCAATTT TTCTTGGATA AACGTGTTTG ATAGAGTTCC ATTCGGTCTT CATTTTCTAA	13560
GAAATGAGGA GTTGGACGAA CTTGAAAATT CAAAATATCC TCCAAACCAT AAGGTACATA	13620
GAGTTCAAAA TCTAATTCTT CATTCAAGCG CAGTCCAACT GCCGTACACC GTTCTGGATA	13680
CTTACTCATA GCATCACGAG AACTGGTATA GGAAGCAGTG TGAGGACTGT GCTGATGCAT	13740
ATAGACCTGA TTTTTC AATT CCCACTGGTA CTGAGGAAAA TCCTCTCTCA GCTTTTCTC	13800
CAGTAATAAG GTTTCCTCAT AAGAAAAATC TGGATCAAAG AAAATCACAT CTATATCTGT	13860
TTCATGATCA AAAGGGGATT TGTCTGACAA AAGATTCCAG ATGAAATTTC TGACAGAACC	13920
TGCTGCCAAC CACGAGTCTT TCAAACCAAG GTCTCGGATG ATCGTCAGAA TGGCCATCAT	13980
ATCTGGACTT TCTCTAAAAG CCTCTAAGAT TTCTTGCTTA TTTTTC ACTG TATTCATAAC	14040
CTAAGTGCTC ATATGCCTTA GCAGTCGCCA CCCGTCCAGA CCGTGTCCGC ATGATAAAAC	14100
CTTTTGAAT CAAGTAAGGC TCATACATGT CTTCAACTGT CTCACGCTCT TCGGCGATAT	14160
TCACAGAAAG AGTTCCTAGA CCAACAGGTC CTCCACTGTA CATCTCAATC ATGGTGCGAA	14220
GGATTTTTTG ATCCACATAG TCCAAACCTT CATGGTCAAC ATCCAGCATA GTCAAAGCCT	14280
TATCGGTAAT AACATCATCG ATAACCCCAT TCCCCATTAT CTGGGCAAAA TCGCGCACGC	14340
GCTTGAGGAG ACGATTGGCA ATACGAGGGG TTCCACGACT ACGTAGGGCC AACTCAGATG	14400
CTGCCTCATG GGTGATTTC ATCTCAAAAA TATCTGCCGT CCGCTCGACA ATTTCTGTCA	14460
AGTCAGCATG AGCATAATAC TCCATATGAC CTGTAATCCC AAAACGTGCC CGTAGTGGAT	14520
TTGAGAGCAT ACCAGCCCGA GTCGTCCAC CAATCAAGGT AAAAGGAGGC AACTCCAAAT	14580
GAACACTGCG ACTGCCTTCA CCAGCCCCAA TCATAATATC GATGTAGAAG TCCTCCATGG	14640
CACTATAAAG CACTTCTTCC ACTGACATGG GTAAGCGATG AATCTCGTCA ATAAAGAGGA	14700
CATCTCCAGG CTCTAAATCA TTCAAAATCG CTACCAAATC ACCCGCTTTT TCGATAACAG	14760
GACCAGACGT TTGCTTGAGA TTGACTCCCA GTTCATTGGC AATGACAAAA GCCATGGTTG	14820
TTTCCCAAG CCCTGGAGGG CCAAATAAGA GCACATGATC CAGCGCTTCA TCCCGCATTT	14880
TAGCGGCTTC GATAAAGATC TGAAGTTGAT CCTTAACCTT ATCCTGACCA ATATATTAC	14940
GTAAATACTG AGGACGGAGC GTGCGTTCTA CTAACCTC ATCACCATC ATCTCATTAT	15000
CTAAATTTCT ACTCATGGCT CTATTATATC AAAAAACA AGCCACAAAC AAAAAAGCCA	15060
CCTGATTGGG TGACTCCTAA GTTTAGCACT TATGTGGTAT AATATTATAC GGCATTCTA	15120
CACCGCCTAC GAAAGGAGGT GAGATAGCCC ATGATGGAAT TAGTACTCAA AACTATTATC	15180
GGACCAATTG TGGTCGGTGT CGTTCTTCGT ATAGTCGATA AATGGCTAAA CAAGGACAAA	15240
TAGTGTCAAA AAAGACCTCA AGCTTATTTG GTCGTGAGCT TGGGGTCTTT TCTAGCCTAT	15300

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GATATAGAAC TAGTACTCAA TTCCTTTTTA TTATCCCATATA GTTCACGAAT TTTGTCAAAA	15360
CTTTACATTT TCTTCAACCG CTGTACGACA AGACGGTTAA GATTAAGAGA ACGTTAGGGA	15420
TTCTATCAAT TTCATAGAAA TTTTGATTTT GTAAACGAAG AGACAATCTT ACATGTCACT	15480
TCTCATTTAA TACGCCACTA CTAGACAAGC AAAATCATT TACAGTAGT TCCAGTCCTT	15540
CAATTAACAG TCACTTACAA TCAAATTGAG TTTGAACTAG CTGAAGCGAC CACAGACCTA	15600
TTTCTTAGTC ATATTGCTA AAAAAATCCC CGCCAAAATC TCAAAAAGTC CCCGCCAATT	15660
CCCCGACCAA AATCCGAAAA ATACCGAAAA ATATCGAAAA ATTATTTTTA GAATAGTCCC	15720
AAAAATCCTG AAATAGAGCT AAAAACTCC ACCTGATTCG GTGGAGTTAA GGGAGATTAT	15780
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ACACCACCGT ACGTGCCGTT TGGCATACGG CGGTTCAACT AACTTTTAAC GCATGTCGTT	16020
CAAGGTAATA ATCCAAACAC GAAACCAGTC CACGTTTTC CAGGACTGGT TTTGATATAG	16080
CACGTTTAAG TACCGACTTC TGAGCTACTA ATTGATAATG GTCGCCCCAG CCAGATACCT	16140
TATCTGCTAT CCATTTAGGA ACTCCTAACT TAAGCAATCC CCATAATCGT CTCGATTTCT	16200
TCTTCCATTG CTTCCAGATA ATCACTCGTA GCGGAGTACG CAAGCGCTCA TCTATGCTGG	16260
CGACTATACT TTTCATATTT CCCAATGAGC AATAGTTTAT CCATCCTCGA ATAGACAAAT	16320
TCAGTTGCTC AATACGTCTT GTTAGGTCTA TACTCCATTT CCTCTGTCTT AGTTTCTTCA	16380
ATTTAACTT AAATCTCCGA AACTATCTT GATGTGGACG GCTTTTCCAA CCATCTGATA	16440
ATTTCCAGAA CCCAAAACCT AGATATTTCA ACTCTCTTGG TCATGTTTAC TTTCAAACCT	16500
AGCCGTTTCT CAATAAACGA CTGACTGAAT ACATC	16535

(2) INFORMATION FOR SEQ ID NO: 75:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 8136 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: double
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 75:

CCAGAGCGTT GCGTCCGAAA GTCTATCCAG ACACGGCTCT TAAAAACAA AAGGAGAAAT	60
GATGCATACT TATTTGCAAA AGAAAATTGA AAATATCAAA ACAACCCTAG GTGAAATGTC	120

618

AGGTGGTTAC CGTCGTATGG TTGCGGCTAT GGCTGATTTA GGATTTTCAG GAACTATGAA	180
GGCTATCTGG GATGACCTCT TTGCCCATCG TAGTTTTGCC CAGTGGATTT ATTTGCTGGT	240
TTTAGGAAGT TTTCCTCTCT GGCTGGAGTT GGTTTACGAA CATCGTATTG TTGACTGGAT	300
TGGGATGATT TGTAGCTTGA CAGGGATTAT CTGTGTAATC TTTGTATCGG AAGGTCGAGC	360
AAGTAATTAT CTTTTTGGCT TGATTAAGTC TGTTATTTAC CTTATTTTGG CCCTACAGAA	420
AGGCTTTTAT GGTGAGGTGC TGACGACACT TTAAGTTCACA GTCATGCAGC CAATTGGACT	480
TCTAGTTTGG ATTTATCAGG CACAGTTTAA GAAGGAAAAG CAGGAGTTTG TCGCGCGTAA	540
ACTGGACGGC AAGGGCTGGA CAAAGTATCT TTCCATTAGT GTGCTTTGGT GGTGGCCTT	600
TGGCTTCATT TATCAGTCTA TTGGTGCCAA TCGTCCCTAT CGTGATTCAA TCACAGATGC	660
AACCAATGGG GTAGGGCAAA TCCTCATGAC AGCTGTTTAC CGTGAACAGT GGATATTCTG	720
GGCGGCTACC AATGTCTTTT CAATCTATCT CTGGTGGGGA GAAAGCCTGC AAATTCAAGG	780
GAAATATCTA ATTTATCTCA TTAACAGTCT AGTTGGTTGG TATCAATGGA GCAAGGCAGC	840
TAAGCAGAAT ACTGATTTAC TTAAGTAGGA AAAGATGTTT GAAAGTGCTG TTTTGAGATT	900
TCGATTAAAA CAGATATAGT TGATAATCAA GGATTTATAG TATGAAAAAG AGGATCGGCG	960
GGTCCTCTTT TGTTGTTGAA AAGATAAAAA ACTCAGTAAC CTAGAAATAA GACAACTGAA	1020
GCTTTACTCT ATATTCAATT TTTAGGAATG AGAAGGTCTA GATAAAATG GACAACTTCC	1080
TGGTCTGTGA AATCTTGACC TTTTTTGAGC CACCAGGTCA ATGTCTCGAT AAAGTTGGAC	1140
ATGACCAAGT GTTGGAGGTA AGAAGTAGGC AGATTAGGGT GGGCTTCTTT TAAATTATCA	1200
GCTAGCACGG AATAGACATG GTGTTCTAGC TCTTTATGGA GTTGACGGAG GAAGTAGTCA	1260
TTTTTGGAAT ATAGCAGACT GGTGATATGG TCTTGGTTTT TATGAAAATG GAGAAAGAGG	1320
TGGGCGAGGT AGTCCTCGGT TGAAATGGCT TGCTCTCTTT CAAAAGATG ATGGAAGAGG	1380
TAGCGGCAGA GCTGGTCCAG AAGAAGCTCC TTAAGTCTAT AGTGACAGTA AAAGGTGGAT	1440
CGTCCACAT CTGCGAGATC AATGATATCC TGAACAGTAG TGGCCTCGTA GCCCTTAGCA	1500
TTCAAAAGTT GTATAAAGC TTGATAGATG GCTTTTTTGG TTTGCTGAT ACGGCGGTCA	1560
ATGTTAGTCA TATGGACACT TAAGGCAAAT TGTTCAGAAC TGAATAAACC TGACGTTTTG	1620
CTTCTATCCT TTCTTTGAGT TTTAGTGGAT AATGATAATG AACAAGGTGT TCATAAATCT	1680
ATTATAACAA AGGAATGAGA AATATGAAGG CAAAATATGC TGTTTGGGTG GCTTTTTTCT	1740
TAAATTTGAC TTATGCCATT GTTGAGTTTA TTGCAGGTGG AGTATTTGGT TCTAGCGCTG	1800
TTCTTGCTGA CTCTGTGCAT GACTTGGGAG ATGCGATTGC AATTGGAATA TCAGCTTTTC	1860
TAGAAACAAT CTCCAATCGT GAAGAAGACA ATCAGTACAC CTTGGGCTAT AAGCGGTTTA	1920

GCCTGCTAGG AGCCTTGGA ACAGCTGTGA TTCTCGTAAC GGGCTCTGTT CTAGTCATTT	1980
TGGAAAATGT CACGAAGATT TTGCATCCGC AACCAGTCAA TGATGAGGGG ATTCTCTGGT	2040
TAGGAATTAT TGCGATTACT ATCAATCTGT TAGCGAGTCT GGTGGTTGGT AAGGGAAAGA	2100
CAAAGAATGA GTCTATTCTG AGTCTGCATT TTCTGGAAGA TACGCTAGGG TGGGTAGCTG	2160
TTATCCTGAT GCGGATTGTT CTTCGATTTA CGGACTGGTA TATCCTAGAT CCTCTTTTGT	2220
CCCTTGTCAT TTCTTTCTTT ATTCTTTCAA AAGCCCTTCC ACGTTTTTGG TCTACACTCA	2280
AGATTTTCTT GGATGCTGTG CCAGAAGGTC TTGATATCAA GCAAGTAAAG AGTGGCCTGG	2340
AGCGATTGGA CAATGTGGCC AGCCTTAATC AGCTTAATCT CTGGACTATG GATGCTTTGG	2400
AAAAAATGC CATTGTCCAT GTTGTCTAA AAGAAATGGA ACATATGGAA ACTTGTAAG	2460
AGTCTATTCG AATTTTCCTA AAAGATTGTG GTTTTCAAAA TATTACCATT GAAATTGATG	2520
CTGACCTAGA AACTCACCAA ACCCATAAGC GAAAGGTGTG TGAATTGGAA CGGAGTTATG	2580
AGCATCAACA TTAGAAAAAA GTGAAAAATA CTTGGGTACT ATCTTATTTG GAATAGAGTA	2640
ATTTCTTTAT TATTTAAATA TTTCAAAAT TGGAAGAGA AGAGCATTGT ATAACTCCA	2700
GATATATGAT TGTTAATGAT AAAAATTTTT CGATTAGATA CAAAATGCTT GACTTGGAGT	2760
CAACTCAAAG TTATATAATA AGATAAGTGA GTTAGAATAG CGTGAATTCA GTGAATGAAA	2820
TGAGAGGAGG TTAGCGTGTG AATATTAAAT CTGCCAGTGA TTTGTTGGGA ATTTAGCGG	2880
ATACGATTCC GTATTATGAA CGGGTTGGTC TTGTGCCACC GATTACTCGT ACTGCTACTG	2940
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CGGCGGGTGT CTCTGTAGAT AGTTTAGTTG ACTATATGTC GCTCTACCAA AAGGGAGATG	3060
AAACGAGAGA GGAGAGGCTT GGTATTTTAG AAGAGGAAAA GCAAAAATTA GAGGAGCGCT	3120
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GTGGACACGA AGCGATTGGG ATTGTTGAAG AAGCTGGGA AGCCATTACG ACGGTGAAAC	3420
CAGGTGATTT TGTGATTGTC CCTTTTACAC ATGGATGTGG TGAGTGTGAT GCCTGTCTTG	3480
CTGGATTTGA CGGTTCTTGC GACAATCATA TTGGCAATAA TTTGGGGGGT GATTTTCAGG	3540
CAGAATATAT TCGCTTCCAC TATGCAAACT GGGCGCTGGT TAAAATCCCT CGTCAACCTT	3600
CTGACTATAC AGAAGGGATG CTCAAGTCCC TTTTGACTCT TGCAGATGTC ATGCCGACAG	3660

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GCTATCATGC	GGCGCGTGTT	GCAAATGTTT	AAAAAGGGGA	CAAGGTTGTT	GTTATCGGTG	3720
ATGGGGCTGT	TGGTCAATGT	GCTGTCATCG	CGGCTAAGAT	GCGTGGAGCA	TCACAAATTA	3780
TCCTTATGAG	CCGTCATGAA	GACCGTCAAA	AGATGGCTAT	GGAGTCAGGT	GCGACAgcTG	3840
TTGTTGCAGA	ACGTGGTCAA	GAAGGAATTA	CCAAGGTGCG	TGAAATCCTC	GGTGGAGGAG	3900
CAGATGCAGC	ACTTGAATGT	GTTGGTACGG	AGGCTGCTAT	AGAACAGGCG	CTAGGTGTTC	3960
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GTTTCGACATT	TATGCAAAAT	ATCTCTGTAG	CAGGTGGGGC	AGCTTCTGCT	ACAACATACG	4080
ATAAGCAATT	TTTACTAAAA	GCCGTCCTTG	ATGGTGATAT	CAATCCAGGT	CGCGTCTTTA	4140
CTTCAAGTTA	TAAACTGGAA	GATATCGACC	AAGCCTATAA	AGATATGGAT	GAACGTAAGA	4200
CAATTAAGTC	TATGATTGTA	ATCGAATAAA	AAACGAATAG	GAGTTTTAGA	ACTCTATTTCG	4260
TTTTTTATGT	TATCCTATTG	TTGATTTAGG	GTAATTTCTC	TTAATGTCAG	TCTGGTTCCC	4320
AGCATGGTCA	GGCTAGGGAT	TTTCCGACCG	TGGAGGACTT	CCTTGTTAAG	AATATCCATA	4380
CCTGCTCGGC	CCATTTCTTC	AGTATAAACT	GTAATACTAG	AGAGGGGAGG	ATAGACCTGT	4440
TTGGTCAGAC	TAGTGTCGTT	AAAGGAAATG	AGGCTGACGC	GATCTGGCAG	GCTGATTCCA	4500
GCTTCTTGGA	GGGCACGGAG	GGCACCATA	GCTAACTAT	CGCTGGCTGC	GAAAAATGCT	4560
GGCGGAAGTT	GGTCTCCCAA	GCTCTGAATG	GCCTCCTTCA	TTAAGTCATA	GCCAGACTGG	4620
GCAGTAAATC	TTCTTGAAA	GACCAGTTCA	TCATGATAGA	TTCCCTCGC	TTGACTATAG	4680
TTTTTGAAAT	TTTCTAGACG	CTTGCTCTGA	ATGATTTCTT	CTTGGTCTGT	TGTTTCTTCA	4740
AGGCCTGTTA	GAATCCCGAT	ACGGTCCATT	CCTTGACTGA	GGAAATAATC	GACAACCTGT	4800
TTCATAGCAG	TGTAATAATC	CGTGATAATA	CAGGTATGTC	CCAGGGAAAG	TGTATCGCTG	4860
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TTTCCGATGC	AGAGAATCCC	AATCACTTCC	TCGCTTAGGG	TAAAAGGGTG	GTCATTAAAA	4980
TAGCGCAAGA	TATCATAGTC	CAACTCTTGG	GCTCTTTTTT	CTATTCCTAG	GCGAATCTGG	5040
TAGTAGTAGA	GGTCGTCCAG	CTCCCTTTGT	TCGCTGACCC	ATTGGATAAT	GGCAATCTTT	5100
TGCTTGGGTT	TGTGGGACTC	GCCTGTCTTG	AGGTGCTTGG	TGTAGCCCAG	CTCTTCAGCA	5160
ACGGTTAAAA	TACGGTGTCT	GGTTTCTTCT	GTAACAGATA	GGCTCTGGTC	GCGGTTGAGG	5220
ACGCGGGATA	CGGTCGCGAT	AGAGACAGAG	GCTAGCTGTG	CAATGTCTTT	TAAGGTAGCC	5280
ATAAATCCTC	CTTGATTAGG	TTAGTATATC	ATGTTTTTCT	TCTTTTACT	GATATTTTAC	5340
TAAAATTTTA	GTAAAAAGGA	TTGACCTTGG	AAAATTCCTT	GGATATAATA	GAAAGAAAAC	5400
GATTACACGT	TAAGATGGCT	TAACGGACAG	TCAAAGGAGA	ATTCATATGG	CACAACATCT	5460

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TACTACTGAA GCCCTTCGCA AAGACTTTCT TGCTGTTTTT GGTCAAGAAG CAGATCAAAC	5520
CTTCTTTTCA CCAGGCCGCA TTAATTTGAT TGGTGAACAC ACAGACTACA ACGGTGGGCA	5580
CGTTTTTCCT GCTGCTATTT CTTGGGAAC TTACGGTGCA GCTCGTAAGC GTGACGACCA	5640
AGTCTTGCCT TTCTACTCAG CTAACCTTGA GGACAAGGGC ATTATCGAAG TGCCTCTCGC	5700
TGACCTCAAG TTTGAAAAAG AGCACAACCTG GACCAATTAT CCAAAAGGTG TCCTTCATTT	5760
CTTGCAAGAA GCTGGGCACG TGATTGACAA AGGTTTTGAT TTTTATGTTT ATGGAAATAT	5820
TCCAAATGGT GCTGGCTTGT CTTCTTCTGC ATCCTTGGA CTCTTGACAG GAGTCGTGGC	5880
TGAGCATCTC TTTGATTAA AATTAGAGCG TCTCGATTTG GTTAAATCG GCAAACAAAC	5940
AGAAAACAAC TTTATCGGAG TAAACTCTGG CATTATGGAC CAGTTTGCTA TTGGTATGGG	6000
GGCAGACCAA CGTGCTATTT ACCTAGATAC TAATACTTTA GAATACGACT TGGTGCCACT	6060
TGATTTGAAG GACAATGTCG TTGTTATCAT GAACACCAAC AAACGCCGTG AATTGGCGGA	6120
CTCTAAATAC AATGAACGTC GTGCTGAGTG TGAAAAAGCA GTGGAAGAAT TGCAAGTTTC	6180
CTTGATATT CAGACTCTGG GTGAATTGGA CGAGTGGGCC GTTGACCAAT ATAGCTATCT	6240
GATTAAAGAT GAAAATCGTT TGAAACGTGC TCGCCATGCT GTGCTTGAAA ACCAACGTAC	6300
CCTCAAAGCT CAAGTAGCAC TCCAAGCAGG AGATTTGGAA ACATTTGGAC GCTTGATGAA	6360
TGCGTCACAC GTTTCTCTGG AGCATGATTA TGAAGTAACT GGTTTGGAAT TGGATACCCT	6420
TGTTACACA GCTTGGGCAC AAGAAGGAGT TCTCGGTGCT CGTATGACAG GGGCTGGTTT	6480
TGGTGGCTGT GCcATTGCC TGGTTCAAAA AGATACTGTT GAGGCCTTTA AGGAAGCTGT	6540
AGGCAAACAC TACGAGGAAG TAGTTGGATA CGCTCCAAGC TTCTATATCG CTGAAGTTGC	6600
AGGTGGCACT CGCGTCCTTG ACTAGTCAAA AGGAGGCTCT ATAGTGACCT TAGTAAATAA	6660
ATTTGTAACA CATGTCATTT CTGAAAGCTC ATTTGAGGAA ATGGATCGAA TCTATCTGAC	6720
CAATCGTGTT TTGGCAGGAG TGGGAGAAGG TGTTTTGGA GTTGAGACCA ATCTGGATAA	6780
ATTGATTGAC CTCAAGGACC AGCTGGTTGA AGAAGCCGTT CGATTAGAGA CGATTGAGGA	6840
TAGTCAGACT GCGCGTGAAA TCCTTGGTGC TGAAC TGATG GATTTGGTGA CTCCTTGTC	6900
AAGTCAGGTC AATCGTGATT TTTGGGCAAC CTACGCCAC TCTCCAGAAC AAGCGATAGA	6960
GGATTTTAC CAACTCAGTC AGAAAAATGA CTACATCAA CTCAAGGCCA TTGCTAGAAA	7020
TATCGCTTAT CGTGTTCCAT CTGACTACGG AGAAGTTGAA ATTACCATCA ATCTCTCTAA	7080
GCCTGAAAAA GATCCCAAAG AGATTGTGGC AGCCAAGTTG GTGCAAGCTA GTAATTATCC	7140
TCAGTGTGAG CTTTGTCTAG AGAATGAGGG CTACCATGGT CGAGTTAACC ACCCAGCTCG	7200

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TAGCAATCAC CGTATTATCC GTTTTGAAAT GGTGGTCAG GAATGGGGTT TCCAGTATTC	7260
GGCCTATGCT TACTTTAATG AGCATTGTAT CTTTTTAGAT GGCCAGCATC GTCCCATGGC	7320
CATTAGTCGT CAGAGTTTTG AACGTCTGTT GGCTATCGTA GACCAGTTTC CAGGATATTT	7380
TGCTGGATCT AATGCCGACC TGCCGATTGT GGGGGGCTCT ATTCTAACTC ATGATCATTA	7440
TCAGGGAGGC CGTCACGTAT TTCCTATGGA ATTGGCTCCC TTGCAAAAGG CCTTCCGATT	7500
TGCTGGTTTT GAGCAGGTCA AGGCTGGAAT TGTCAAGTGG CCCATGTCTG TCCTACGTTT	7560
GACTTCGGAT TCCAAAGAGG ATTTGATCAA TTTGGCTGAT AAGATTTTGC AGGAATGGCG	7620
CCAGTATTCA GATCCTGCAG TGCAGATTTT GGCAGAGACA GACAGGACAC CGCATCACAC	7680
TATCACACCC ATTGCCCGCA AACCGGATGG ACAGTTTGAG TTGGACTTGG TCTTGCGAGA	7740
CAATCAGACT TCAGCAGAGT ATCCTGATGG TATCTATCAT CCCCACAAGG ATGTCCAACA	7800
TATCAAGAAG GAAAATATCG GCTTGATTGA GGTTCATGGG TTGGCAATCT TGCCACCACG	7860
TCTGAAAGAA GAAGTGGAGC AAGTCGCTAG CTATCTTGTA GGAGAAGCTG TTACAGTTGC	7920
CGATTATCAT CAGGAGTGGG CAGACCAACT CAAATCCCA CATCCAGACT AACGGATAAA	7980
GAAAAAGCCC TTGCAATCGT CAAGGACTCT GTGGGTGCTA TCTTTGCGCG TGTACTTGAG	8040
GATGCAGGAG TCTACAAGCA GACAGAACAA GGCAGACAG CCTTTATGCG CTTTGTGGAA	8100
CAGGTCGGAA TTTTACTAGA CTAGGAGCTT TCTCGG	8136

(2) INFORMATION FOR SEQ ID NO: 76:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 10011 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 76:

CCCATAGTGA AGAGTGGCCA TAAGAAGGTC TTCTAGGCTT AATTTAGGTT TTCGTCCACC	60
TTTTGCGTGT TTAAGTTGAT AAGCTGTTTT TAACACAGCT GAACATCTCT TCAAAAGTCG	120
TGCGCTGAAC ACCAACAAGA CATTTAATC GTGTATCAGT TAGTTGTTTA CTTGCTTCAT	180
CATTCATAGA ACTACTATAC CATGTTTTGT TTCGCAGGAA GTCTAATATT GTCAAATACT	240
GGAACGCTCA TTGCTGGGAT ACCGAATAAG ATTGGCCCAG CTTGATAAC TGGGATACCT	300
GGTTCAAAAC CAAGGTCTGT TGCAGCGATT GGTGTAAAGA TATCGTAACC TTTCATAAGG	360
TCTTCGTTTA CATCTTTCAC CATAACTGCA TCACAGTGAA CATCGTAACC ACGGTTTGAA	420
AGTTCTTCTT CTAGAGCACT TTTAATTTGG TGACTTGAGT TAACACCTGC ACCGCAGGCA	480

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GCAAGAATTT TAATCATTTG GATTTCCTCC GATTTTATTT TTTAATAGAC AAGATTAAGC	540
GGTTGCTTCA GCAATGTAAG CATAAAGGGC TTCTGGTTCA GAAATTTTGT ATAGGTCCTC	600
AAGATGACCA TTTCTGTGA AGAAGTCCAT TAACTGAGCA AGAATGTTCTG TTTGACTTGA	660
ACTTGAATTA TTGATGATAA AGAAGAGCAA GGATACTTCT ACTTCCTTAC CTGGCGCAAT	720
CATATTATGG AAAGTCACCG GTTCTCTCTAA TCGAACAACC ACCACTTTCT CAGCTAGATT	780
ATGAACAATA TCTGTGTGAG GAATCATTAC ATTTGCAAGT CCTTTCCTAG AAATTCCATA	840
TATAAACCAG TTGGAAATGA CTTTTACGCG GTGATCAAGG CTTACGATA AGTTGGAGTG	900
ACAATTTCTC GTTCTTCCAA CAAGCTTGCT ACCTGATCAA AAAGTTATTC TTGATTATCC	960
GCTTCTAAGC AAAACACAAG GTTTTTGTCA AAGAAATAAT CTAATACCAT AAGGTTTTC	1020
CTTCTTTCCA TTAACTTTAT GCTATAAGTA TAACACTATA TGAAATCGTT GTTAATTACT	1080
TTCTATTCTT TTTTGTCTCT TTTTTATAT TTTTGTGTTG TTTATAGTTT GTTATATAAA	1140
AATAAACACA CAAACAAATA CTCCAAGCAT TTTCTGTTT TAATACTCAA TGAAAATCAA	1200
AGAGCAAAC AGGAAGCTAG CCGCAGTTGT TCAAAACACA GTTTTGAGGT TGTAGATGAA	1260
ACTGACGAAG TCACTCAAAA CATGGTTTGT AGGTTGTAGA TGAAACTGAC GAAGCAACAg	1320
CCATACATAC GGTAAGGCGA CGCTGACGTG GTTTGAAGAG ATTTTCGAAG AGTATAAAAA	1380
CTAAAAAGC AGACCATCTA AGCCTGCTTT ACTATTGATT CTTATATAAA TTTCTGTGA	1440
ACAAGGAAAG GCATTTCTGA TAACTTATTC TTCATCCATA CTCAAGACGC TGAGGAAGGC	1500
TTCTTGCGGA ACTTCAACTG ATCCGATGGA TTTCATGCGT TTCTTACCAG CTTTTGTGTT	1560
TTCAAGGAGT TTACGCTTAC GAGAAACGTC ACCACCATAA CATTAGCAA GTACGTTCTT	1620
ACGAAGGGCC TTGATATCAG TACGAGCGAC AATCTGTGT CCAATAGCCG CTTGGATTGG	1680
AACTTCAAAT TGTTGGCGAG GGATGATTTT CTTGAGTTTA TCAACGATGA GTTTCCCACG	1740
TTCTGAGGCA AAGTCCTTGT GAACGATAAA GCTGAGGGCA TCCACCTTAT CTCCATTGAG	1800
AAGAATATCC ATTTTCACCA GCTTAGATGG GCGATATTCT GACAATTCGT AGTCAAAGCT	1860
TGCATAACCA CGTGTCGAAG ACTTAAGTTT ATCAAAGAAG TCAAAGACAA TTTAGCAAG	1920
AGGAATTTGA TAGATAACAT TGACACGGTT ATCATCAATA TAGTCCATAG TCACAAAGTC	1980
CCCACGCTTA CGCTGAGCTA GCTCCATTAC TGCTCCGACG AACTCCTGTG GTACCATGAT	2040
TTGCGCCTTG ACATAAGGCT CTTCAATGGT CGCAATCTTA GTTGGGTCTG GAAACTCAGA	2100
TGGGTTAGAC ACATCCATAG ACTCACCGTC GGTCAAATTA ACTTTGTAAA TAACAGACGG	2160
AGCTGTCATG ATGAGGTCAA TATTGAACTC ACGCTCTAAA CGTTCCTGGA TAACATCCAT	2220

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ATGGAGAAGT CCAAGAAATC CACAACGGAA ACCAAATCCA AGTGCCTGAG ATGTTTCTGG	2280
TTCAAACCTGA AGACTAGCAT CATTTCAGTTG CAATTTTTC AAGGCTTCAC GCAGGTCATT	2340
GTACTTGTTT GATTTCGATTG GGTAGAGACC CGCAAAGACC ATAGGATTCA TCTGCTTATA	2400
ACCATGTAAT GGTTCCTGCCG CAGGATTGGT TGCCAAGGTA ACGGTATCAC CCACACGAGT	2460
ATCCTGAACC GTCTTGATAG ACGCCGCAAT GTAACCAACA TCACCAGTCG CAAGGAAATC	2520
ACGACCAACC GCTTTTGGTG TAAAAATACC GACTTCGGCC ACATCAAAGG TCTTACTATT	2580
GCTCATGAGC TGAATCTTAT CACCAGGTTT GACCACTCCG TCCATGACAC GCACTTGGAG	2640
GATAACCCCA CGGTAAGCAT CGTAAACAGA GTCGAAAATC AAGGCCTTAA GTGGCGCCGT	2700
CACATCACCC GTTGGTGCTG GTACTTTTTC TACAATTTGC TCGAGGATTT CTTCAATCCC	2760
AATACCAGCC TTGGCAGAAG CCAAACCTGC TTTACTGGCA TCCAAACCAA TCACATCTTC	2820
AATCTCTGTA CGCACGCGCT CCGGATCTGC AGCCGGCAGG TCAATTTTAT TAATGATAGG	2880
CATGATTTCC AAATCATTAT CCAAAGCCAG ATAAACGTTG GCAAGAGTTT GAGCCTCAAT	2940
TCCTTGAGCC GCATCGACCA CCAAATAGC ACCCTCACAG GCAGCTAGCG AACGTGAAAC	3000
TTCATAGGTA AAGTCAACGT GCCCTGGTGT GTCAATCAAG TGGAAAATAT AAGTTTCCCC	3060
ATCTTTTGCA GTGTAATTCA ACTCGATGGC ATTCAACTTA ATAGTAATTC CACGTTCCCG	3120
CTCTAGCTCC ATGCTATCCA AAAGCTGGGC CTGCATTTCA CGACTTGAAA CCGTCTCTGT	3180
TTTTTCCAAA ATGCGGTCTG CTAGAGTTGA TTTTCCGTGG TCAATATGGG CGATAATAGA	3240
GAAGTTACGG ATCTTCTCCT GTCGTTTTTT CAATCTTCT AAGTTCATGA TTCTCTTCCT	3300
TTCAGGGTAT CTATTTATTA TAAATTGTTT TTGATATTTT GACAAGACCA TACCCTGCTA	3360
GGAGTACTAA TCTTCAGCGA CAAAGCCGTC ATTTTCGATA AAGTGGTGTT CTGTCATTCC	3420
TTGGTCTGTA AAGACAATCC CGTGAAGGAC ACCACCATAA ACAGCTCCTC CATCCATTCC	3480
AATCTTGCCA TCTTCTGTAG TCCAAAGCTC AGATGTACCG CGTTCTTGCT GTAACAAACC	3540
ATAGACCGGT GTATGACCGA AGACAATGGT TTTTCCAGTA TGATTTTCAG CTCCGTGGAA	3600
TGGTTTTCTA AGCCATACTT TTTTATAATC TGTGTTTCA TGCCAGTCGT CCAAGGTCAA	3660
ATCAATACCT GCGTGAACAA AGATATACTT GTCTGTCTCT ACTACAAATG GCATTTGACG	3720
AATGAATTCG ACCAAGTCTG CCGCTTCAGC GgCAACCCGC TTGGCATCTT CTA CTCCATC	3780
AACTGGTGCA TCCAAGGGAC GACCTAGGAT AGAGTTAATG GTTGTATCTC CACCATTGCG	3840
ACTATAATGG TCATAACTTT CTTCTGGGTC ATCTAGCCAA GTCAAAAACA TATACTCGTG	3900
GTTTCCGGAC AAACAGATAG CCCCTTGATT GTCCACCAAG TCCTTGACCA TTTCAAGAAC	3960
ACGGTGACTA TCCTCACCTC TGTCAATCAA ATCACCTAGA AAGAGCAACT GGGGCTGACC	4020

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ATCCCAGGTT TTGAGAAGGT CTTCCAGCAT CCCAGCTTTT CCGTGAACAT CTCCAATTAC	4080
ATAATAATCT GTCATCTTAT TTCTCCCTGT TTCTCAACAA TTCTCTTGCT TCGTCAGGG	4140
CTGCTTCTGT CACATCATCA CCGCCAACA TCTTGGCAAC TTCCTCCACT CGCTCTTCGA	4200
CCGTCAAGAG ACGAACAGTC GAAACCGTTG AATGGTCATT ACTAATCTTC TCAATAAAGA	4260
ATTGATAATC TGCAATCGCA ATTACTTGTG GCAAATGGGA GATAGCCAAA ACCTGACCAT	4320
GCTGACCAAT TTTATGAATT TTCTGAGCAA TAGCTTGAGC AACACGACCT GAAACTCCCG	4380
TATCCACCTC ATCAAAGACA ATGCTAGTCT TGCCTTCTTT ACGTGAAGA GCAGACTTAA	4440
TGGCTAACAT GAGACGAGAT AATCCCCCTC CAGAAGCAAC CTTAACCAAG GGTTTAAAGT	4500
CTTCTCCAGG GTTGGTTGAA ATATAAACT CAACCATTTT ATTTCCCTCA CGACTGAATT	4560
TTCCCTTACT AAAACGAACC TGAACTGGG CTTTTTCCAT ATAAAGATCT TGCAGTTCTT	4620
GTTTAATCTC AGCTTCGAGT TGCTGAGCCA AATTATGACG AGCAGAAGCA AGTTGACCTG	4680
CCAAATTGAC AAGATTGACT TCCAACCTCT TAAGCTCTGC TTCCATGTCC TCAGACGAAA	4740
GATTATTGCC TGTCAAGAGA TTGTATTCTT CCGTAATCTT GGCAAAATAA AGCAAAACAT	4800
CATCAACAGT CCCACCATAC TTACGAGTAA TAGTATGAAG GAGGTCCAAA CGATTCTCAA	4860
CCTGCATCAG GCGATTGCCA TCAAAATCAA GGTCTCAAT GATAGCTTCC AAACGTTTGC	4920
TAATGTCTTC TAAACATAG TAGGTCTCAG ACAGATAGCT TGAAATTTCA CGGTATTCAG	4980
GATCATACTC TTCGACACTT TCCATGTCAT TCATAGCTGA ACGAACATTG GCCAGACTTG	5040
AAAAATCTTC ATGTGTTCAAC ATACTGTAGG CATTGGTCAG TGTATCCGCA ATATTTTGT	5100
GGTTGAGGAG TTTATCTCGC TCTTGATTGA GAGCCAAGTC TTCTCCAGCC TGCAAGTTTG	5160
CTGCCTCAAT CTCTGCCATT TGAAATTCCA ACATTTGAT ACGTGCCTTG TGTTCCTGTT	5220
GGTTTTCTT GACTTCCAGA ACCTGCTTGC GCATTTTCCG ATAGGCATCA AAACCTGTTT	5280
GATAGGTTTC TTTCAAGTCC CAAAAAGCGG CATCACCAA TTCATCCAAC ATCTGGATAT	5340
GCAGTTGGGG ACGCATTAA TCCTCATGGT CATGCTGACC ATGAATATCT ACAAGATGTT	5400
GCCCAATAGC TCGCAAAACA GACAGATTAA CCATCTGACC ATTTACACGG CTGATACTAC	5460
GACCATTTTG CAAGATTTC CGACGGATGA TAATTTATC ACCTAATTCT AAACCTTGCT	5520
CATCAAAAAT TTCCTGTAAA AGACGACTAT TCTCAACTGA GAAAAGCCCC TCAATCTCTG	5580
CCTTTGGTGC ACCATGACGA ATAACATCTG TCGTCGCACG AGCTCCCAAC ATCATATTCA	5640
TGGCATCAAT GATAATCGAC TTCCCTGCAC CCGTTTCACC AGTCAGGACA GTCATCCCCT	5700
TTTCAAAATT GAGGGAAATA GCCTCAATAA TGCAAAAGTT TTTTATCGAA ATTTCAAGTA	5760

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ACATATAGAC	CTACCAATTT	TTTACTTGTT	CAAAGATTTT	CTCTGCTAGA	CTTCCACTTC	5820
TGGCAATGAC	TAAAATCGAG	CTATCATCAG	TCAAACAGCT	AAAAATCTTG	TCTGCAAAAG	5880
TCTCGATTAA	CTGAGCTTTT	ACAAAAGCCG	TATTTCTTGG	AATAACTTGG	AGATTGATCA	5940
TCTTATCCAT	CAATTCAGCC	GATTCGATAT	TGTCTTCAGC	CAGTTGCAGA	CTTTTTACGA	6000
TTGATTTTGG	CAATTCGTAG	ACATAGGTGT	TGTCTCTCAA	AGGAATTTTG	ACAATACCTA	6060
ACTCTTTGAT	ATCTCGGGAT	ACCGTCGCCT	GAGTGGCAGT	GATACCTGCT	TCTTTCAAAT	6120
GTTCTACAAT	TTCTTCTTGC	GTGCCGATTT	GATAATCTGT	CACCAATCTT	CTAATTTTTT	6180
CAAGTCTCTC	TTTTTTATTC	ATTTTTAAAT	TGACTATGCG	CCCTCTCTAC	TGCTTCTTTA	6240
ATCTCAGCAA	GAATCTGATT	GCTTGCTGAC	TTTTCTTTTT	TCAAATACGC	TAAAAATTCA	6300
ATATTTCCAT	GTCCACCTTG	GATGGGAGAA	AAGTCCAAGC	CAAGGACTGA	AAAACCTACC	6360
TCTACTGCCA	TAGCTGTTAC	AGATTCAAGG	ACATTCTGAT	GAACCTTAGC	ATCTCGAATA	6420
ATTCCATTTT	TCCCAATCTG	CTCACGTCCT	GCCTCAAAC	GAGGTTTGAC	AAGTGCTACC	6480
ACCTGACCTT	GATCAGCCAA	GACACGGTGC	AAGGCTGGCA	AAATCAGACT	AAGGGAAATG	6540
AAACTCACAT	CAATACTGGC	AAAGCTCGGC	TCCTGCTCGA	AATCAGTCTT	TTCAGCATAG	6600
CGGAAATTGA	ACTGCTCCAT	GCTGACAACT	CGTGGGTCTT	GGCGTAATTT	CCAAGCCAAC	6660
TGATTGGTAC	CAACATCGAC	TGCAAAGACC	AACTTGGCAC	TATTCTGTAG	CATGACATCG	6720
GTAAAACCTC	CAGTAGAGGC	CCCGATATCA	ATCGTAGTCG	CGCCATCCAC	CGACAAATCA	6780
AAGACCTGCA	AGGCCTTTTC	CAGTTTCAAA	CCACCACGGC	TGACATACTT	GAGTTTCTCC	6840
CCCTTGAGTT	TTAATTCGGT	GTCATCTGGA	ATTTCTCTCT	CTGGCTTGTC	AAACCGTTCT	6900
CCATTAAGGA	CTGCTACGAC	TAGGCCAGCC	ATCACACCTC	GCTTGGCCTG	CTCTCTCGTT	6960
TCAAACAACC	CCTGTTTATA	AGCTAGTACA	TCCACTCTTT	CCTTAGCCAT	TGATTCTCAA	7020
ACTTTCTACT	ACACTTACAA	TCGATTCTGT	TTCAAAGGGA	AGCTGCTGGG	CAATTTCTTC	7080
TAATTTTTCA	TTAGCTTGAT	CCAGGGTTTG	GTTACAAAAG	GCAATGGACT	CTTCCAAGCC	7140
CAACAGGGCA	GGATAGGTTG	ATTTTTCTGC	CTGCAGATCC	TTTTGAGGTG	TCTTGCCGAT	7200
TTCTTCAAAA	CTAGCTGTCA	CATCCAGTAC	ATCATCTCTG	ACTTGAAAAG	CAAGTCCAAT	7260
CAATTCACCC	ACAGTTTTC	GCTTCACCTG	CATTTCAGGT	GACAATTCAG	CTATAATAGC	7320
TGCCGCTTGG	AAGGGATAGG	CTAGTAACTT	CCCAGTCTTA	TTGGCATGAA	TAGTCTGAAG	7380
TTCTTCCAAA	GACAAGTGCT	GGTGTTGCGC	CTCCATATCC	AAAACCTGCC	CTGCTACCAT	7440
ACCCAGACTA	CCTGAAGCAA	GGGATAAGTT	GGCAATCAAG	TCCACCTTAA	TCTGACTTGG	7500
CAAATCTGCC	TGCGCAATCA	AGGCATATGA	GTCTAAGAAT	AAGGCATCTC	CAGCCAAAAT	7560

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GGCCATAGCT TCACCGAATT TCTGTGATT GGTAAACCGC CCTCTTCGAT AATCGTCATC	7620
ATCCATAGCA GGAAGGTCAT CGTGAATCAA GCTCCCTGTA TGAATCATCT CTAAGGCAGT	7680
AGCTACCTGC GCGTGAGCAG GTTTGATGGT AACCTGCAAG GCTTCCAGAA CTTCTAACAA	7740
GAGAAAAGGC CGAATACGCT TGCCACCAGC ATGAATAGAA TAGAGAACAG ACTCCCGTAA	7800
ACTAGAGGCA AACTGCTGGT CTCCATAAAA ATCTTCCAAA GCCGACTCGA CAAGAGCTAA	7860
TTTTTCTTGC TTTTTCATTC AAAATCACTT TCTGTTCCGT CTTCTTGCAT GACCTTGACC	7920
AAGGTCTTTT CAGCCTTGTC CAGCGTAGCT TGGAGCTCTT TTGACAAGAC CATGCCCTTT	7980
TGAAAGGCAG TAATCGCATC TTCCAGAGCA ATTTACCACAT TTTCCAAACT TTGGACAATG	8040
GTTTCCAGTT CTGCTAGATT TTCCTCAAAT TTCTTTTGTT TTGACATCTT TAACCTCTAA	8100
TTCTACTTGA CCATCTCGCA TCAAAAGCGT TACTTGGTCT TTTTCTTCA AACTCTCAAC	8160
CGAATCTACA ACGGACTCTT CTTTTTTGAC AATAGCATAA CCACGCGCCA CGATTGCGCT	8220
AGTATCCAAC ATGAGCAAAG CTTCCGAAAG TCGCTTGGCC TCAGCAACCT TGGCGTCATA	8280
AACTAACGCC ATTTGGCTAC CTAAGAGCTT GTCCAACGT CCTAAACGGT CTTGATAGCG	8340
TTGGATTTTG GTAACAGGTG ATAATTGTAC TAATTGATGA GTTCTTGCTT GAACTAATTG	8400
TTTGTTATCA GAAATCCGAG TTCGCAAAC TGTGTTCAAA CGCAGTTGCA GTTGGTCCAA	8460
GCGTTGCAAA TAACCGTCAT ACAAGCGCTC AGGTTGTCTA AAGATAACAG ACTGACTGCA	8520
TTTTTTCAAA GCCTCTTGTT TCTTAGATAG AACATTTCCG ACTGCCGTTA CCATCCGTTT	8580
TTCCTGATTT TGCAAATGAG CTAATACATC CAACTTGGTC ACAGGTGTTG CCAGTTCAGC	8640
CGCCGCTGTT GCGGTTGCAG CGCGTCGATC TGCCACAAAA TCTGCCAAGG TCACATCCGT	8700
CTCATGCCCC AACTAGAGA TAACTGGCAA ACGAGATTCA AAAATAGCTC GTACCACAAT	8760
TTCTTCGTTA AAGGCCCAGA GATCCTCAAT AGAACCACCT CCACGACCAA TAATGAGCAA	8820
ATCCAAATCG TCCCCTTGAT TAGCACGCGC AATATTTCTA GCMAATTCCT CCGCAGCCCC	8880
TTACCTTGA ACCTTGGTCG GATAAAGAAG GATGTCAACA CCTGGGAATC GCCTGCTGAC	8940
GGTCGTGATA ATATCTCGAA TAACGGCTCC ACTACGGCTG GTTACTACAC CAATTCTCTT	9000
AGAAAATTGG GGCAGAGCTT GCTTGAAGCG TTCTTGAAAC AGGCCTTCTT CTGTCAATTT	9060
TTTCTTAAGT TGTTCAAACT GAATCGCAAG CGCCCCAACC CCATCAGGCT CAGCTTTTTC	9120
AATGATGATG GAGTAGCTAC CACTTGGTTC ATAGACCTGT ACACGCCCAA TCACATTGAT	9180
CTTCATTCCT TCTTCCAGGT CAAACCCTAA TTTCTGATAA ATCCCAGACC AGATGGTCGC	9240
TTGAATAACT GCATGGTCAT CCTTTAGGGA GAAATATTGG TGAGTAGGTC GTTTACGAAA	9300

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GTTGGAAACT TGACCAGTTA AATAGACCCG TTCCAAGTAT GGGTCTTTAT CGAATTTTCAT	9360
TTTCAGATAC TTGGTCAAAG TTGTTACCGA TAAATACTTT TCCATCTCCA CCTACTATTC	9420
ATTTACTTGC TCTTTCATGG GTATTATTAT ACCAAAAATA TGCCTAAAAA TCTCCATTTA	9480
TGTACCATTA TGAGGGAAAA ATAGAAAAAG GAGGCAAGGC CTCCACATGT GATTATTTGC	9540
TGTTTCGAGC TTCTTCCAAA ATCTTTGCAA TCTTGGTCGT CAACAGGTCG ATAGCCACGG	9600
TATTGCTAAC CCCTTCAGGA ATGACGATAT CAGCATAACG CTTAGTTGAC TCGATAAACT	9660
GGTGGTACAT TGGTTTGACC ACACCTAAGT ACTGGTTAAT AACGCTATCA AGGCTACGGC	9720
CACGCTCCTC CATATCACGC TTGATACGAC GAATAATGCG CACATCGTCA TCCGTATCCA	9780
CAAAAATCTT GATATCCATC AAATCGCGCA GACGCTTGTC CTCCAAGACC AAAATACCCT	9840
CAACGATAAA GACATCTTGA GGTTCCTGAC GATAGGTCTT GCTACTCCGT GTATGCTCTG	9900
TATAGTCGTA GGTCGGGATG TCCACCGGAC GCCCTGCCAA CAATTCCTTA ATCTGCTCGA	9960
TCATCAAGTC TGTATCAAAG GCAAAAAGGAT GGTCAAGTT GGTTTTGACC G	10011

(2) INFORMATION FOR SEQ ID NO: 77:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 5365 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 77:

CGTGTGGTCT TAAAAATAGA AGACAAAGAA CAACTGTTG GAGGCTTTGT CCTGCAGGC	60
TCAGCCCAAG AAAAAACCA AACAGCTCAA GTTGTGGCTA CTGGACAAGG TGTTCTGACC	120
TTGAACGGTG ACTTGGTTGC TCCAAGTGT AAACTGGAG ATCGTGTCTT AGTTGAAGCC	180
CACGCAGGTC TTGATGTCAA AGATGGCGAT GAAAAGTACA TCATCGTAGG CGAcTAACAT	240
TTTGGCAATC ATTGAGGAAT AGAAGGAGAA ACTAAGTATG TCAAAAGAAA TTAAATTTTC	300
ATCAGATGCC CGTTCAGCCA TGGTTCGTGG TGTCGATATC CTTGCAGACA CTGTTAAAGT	360
AACCTTGGA CAAAAGGTC GCAATGTCGT TCTTGAAAAG TCATTGGTT CACCCTTGAT	420
TACCAATGAC GGTGTGACCA TTGCCAAGA AATCGAATTG GAAGACCATT TTGAAAATAT	480
GGGTGCTAAG TTAGTATCAG AAGTAGCTTC TAAACCAAT GATATCGCAG GTGACGGAAC	540
TACGACTGCA ACAGTCTTGA CCAAGCTAT CGTCCGTGAA GGAATCAAAA ACGTCACAGC	600
AGGTGCAAAAT CCAATCGGTA TTCGTCGTGG GATTGAAACA GCAGTTGCCG CAGCAGTTGA	660
AGCTTTGAAA AACAAACGCCA TCCCTGTTGC CAATAAGAA GCTATCGCTC AAGTTGCAGC	720

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CGTATCTTCT CGTTCTGAAA AAGTTGGTGA GTACATCTCT GAAGCAATGG AAAAAGTTGG	780
CAAAGACGGT GTCATCACCA TCGAAGAGTC ACGTGGTATG GAAACAGAGC TTGAAGTCGT	840
AGAAGGAATG CAGTTTGACC GTGGTTACCT TTCACAGTAC ATGGTGACAG ATAGCGAAAA	900
AATGGTGGCT GACCTTGAAA ATCCGTACAT TTTGATTACA GACAAGAAAA TTTCCAATAT	960
CCAAGAAATC TTGCCACTTT TGGAAAGCAT TCTCCAAAGC AATCGTCCAC TCTTGATTAT	1020
TGCGGATGAT GTGGATGGCG AGGCTCTTCC AACTCTTGTT TTGAACAAGA TTCGTGGAAC	1080
CTTCAACGTA GTAGCAGTCA AGGCACCTGG TTTTGGTGAC CGTCGCAAAG CCATGCTTGA	1140
AGATATCGCC ATCTTAACAG GCGGAACAGT TATCACAGAA GACCTTGGTC TTGAGTTGAA	1200
AGATGCGACA ATTGAAGCTC TTGGTCAAGC AGCGAGAGTG ACCGTGGACA AAGATAGCAC	1260
GGTTATTGTA GAAGGTGCAG GAAATCCTGA AGCGATTCTC CACCGTGTTC CGGTTATCAA	1320
GTCTCAAATC GAAACTACAA CTTCTGAATT TGACCGTGAA AAATTGCAAG AACGCTTGGC	1380
CAAATTGTCA GGTGGTGTAG CGGTTATTAA GGTGGAGCC GCAACTGAAA CTGAGTTGAA	1440
AGAAATGAAA CTCCGCATTG AAGATGCCCT CAACGCTACT CGTGCAGCTG TTGAAGAAGG	1500
TATTGTTGCA GGTGGTGGAA CAGCTCTTGC CAATGTGATT CCAGCTGTTG CTACCTTGGG	1560
ATTGACAGGA GATGAAGCAA CAGGACGTAA TATTGTTCTC CGTGCTTTGG AAGAACCCGT	1620
TCGTCAAATT GCTCACAATG CAGGATTTGA AGGATCTATC GTTATCGATC GTTTGAAAAA	1680
TGCTGAGCTT GGTATAGGAT TTAACGCAGC AACTGGCCAG TGGGTTAACA TGATTGATCA	1740
AGGTATCATT GATCCAGTTA AAGTGAGTCG TTCAGCCCTA CAAAATGCAG CATCTGTAGC	1800
CAGCTTGATT TTGACAACAG AAGCAGTCGT AGCCAATAAA CCAGAACCAG TAGCCCCAGC	1860
TCCAGCAATG GATCCAAGCA TGATGGGCGG GATGATGTAA GCTTTCTATA GAAAACAACT	1920
TATAAAAAAC ACAAAGGAG GGAATGACTA ACCCTCTTTT TTATAGGCTC TTTGTCAACT	1980
GTAGTGGGTT GAAGTCAGCT AAGCTCGAGA AAGGACAAAT TTCGTCCTTT CTTTTTTGAT	2040
GTTCAAAGCG ATAAAAATCC GTTTTTTGAA GTTTTCAAAG TTTCGAAAAC CAAAGGCATT	2100
GCGCTTGATA AGTTTGATGA GATTATTGGT CGCTTCCGGT TTGGCGTTAG AATAGTGTAG	2160
TTGAAGGGCG TTGATAATCT TTTCTTTATC TTTGAGGAAG GTTTTAAAGA CAGTCTGAAA	2220
AATAGGATGA ACTTGCTTAA GATTGTCTC AATAAGTCCG AAAAATTTCT CCGGTTCTTT	2280
ATTCTGAAAG TGAAACAGCA AGAGTTGATA GAGCTGATAG TGATGTTTCA AGTCTTGTA	2340
ATAGCTCAAA AGCTTGCTTA AAATCTCTTT ATTGGTTAAA TGCATACGAA AAGTAGGACG	2400
ATAAAATCGC TTATCACTCA GTTTACGGCT ATCCTGTTGT ATGAGCTTCC AGTAGCGCTT	2460

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GATAGCCTTG TATTCATGGG ATTTTCGATC CAATTGGTTC ATAATTTGAA CACGCACACG	2520
ACTCATAGCA CGGCTAAGAT GTTGTACAAT GTGAAAGCGA TCCAACACGA TTTTAGCATT	2580
CGGGAGTGAA ACAGTCTGGG AGACTGTTTC AGCCTGAGCC TAGAAATTTG AAAGCGAAGC	2640
TGTTTAGCCA AGTCATAGTA AGGACTAAAC ATATCCATCG TAATGATTTT CACTTGACAA	2700
CGAACGGCTC TATCGTAGCG AAGAAAGTGA TTTCGGATGA CAGCTTGTGT TCTGCCTTCA	2760
AGAACAGTGA TAATATTAAG ATTATCAAAA TCTTGCGCAA TGAAACTCAT CTTTCCCTTA	2820
GTGAAGGCAT ACTCATCCCA AGACATAATC TTTGGAAGCC GAGAAAAATC ATGCTCAAAG	2880
TGAAAGTCAT TGAGCTTGCG AATGACAGTT GAAGTTGAAA TGGCCAGCTG ATGGGCAATA	2940
TCAGTCATAG AAATTTTTC AATTAACTTT TGAGCAATCT TTTGGTTGAT GATACGAGGG	3000
ATTTGGTGAT TTTTCTTTAC CAGGGGAGTC TCAGCAACCA TCATTTTGA ACAGTGATAG	3060
CACTTGAAAC GACGCTTCT AAGGAGAATT CTAGAAGGCA TACCAGTCGT TTCAAGATAA	3120
GGAATTTTAG AAGGTTTTG AAAGTCATAT TTCTTCAATT GGTTTCCGCA CTCAGGGCAA	3180
GATGGGGCGT CGTAGTCCAG TTTGGCGATG ATTTCTTGT GTGTATCCTT ATTGATGATG	3240
TCTAAAATCT GGATATTAGG GTCTTTAATA TCGAGCAGTT TTGTGATAAA ATGTAATTGT	3300
TCCATATGAA TCTTCTAAT GAGTTGTTTT GTCGCTTTTC ATTATAGGTC ATATGGGACT	3360
TTTTTTCTAC AACAAAATAG GCTCCATAAT ATCTATAAGG GATTTACCCA CTACAAATAT	3420
TATAGAGCCG AAAATTCACA TCTAATATAT GCAGACTACT TTGAAATGAA ATTAAAAAAA	3480
TTATTAAAGG ATGACACAAA AGTTTTTGAA AAATCTACAT TCAAATTTGT AGAAGGATAT	3540
AAAATATACC TGACAGAATC TAAAGAATCT GGAATTAAAC AAATGGACAA TGTCATAAAA	3600
TATTTTGAGT TTATTGAATC TAAAAGTATT GCTTTATATT TTCAAAAACG ATTAAATGAG	3660
CTGATAGATT AAATAGCATT TTCTCTGTTG AGATATTGTT TTTAAAATAT TGTACTAAAT	3720
GATTGATGCT ATGTGGAAAT ACAAAAAAAT GTTTTTGATA CGAAGTTGAC CTGTATTTTT	3780
TATACTAATC ATTTTCGTAT TTTTGTATT AAACGATATA AGTTTGTGT AAACCTTACA	3840
GGAATAAAGA CATTAAAAAA TAACAGTATA TCTATTTGTT TTATATATTT TACGAATTCT	3900
GCATAAATCT CTTTCTAGTA ATGTGTTGTA ACTCTGCTAT AATAGATTTA TTCCTTTTTG	3960
TGTTTACACA ATTTATTTTA TAGTACCAAA AAAGGTCAGG ATTTTGTTC TGACCTTTGA	4020
CAACTTTACC GATTCTTTAG TTCTACATAG CGCTTGTAAC AAATGTTTAC ATAGGCTTCT	4080
GAGAAAGGAC CACGTCCATT GTTAATCCAA TCAACAAGAA TTTTGACATG TTCTTTTAAA	4140
ATATAGTCCA AGTCATCAGA ATAATTCATT TTGCGTTTGT GACGCTCGTA CTCTTCAACG	4200
TCCAAGAGAC GTTTTCCCC ATCTGTAAAA ATTTTAACAT CCAAATCGTA ATCAATATAC	4260

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TTCAGTGCTT	CTTCATCCAG	ATAGTAGGGG	CTAGCCATAT	TGCAATAGTA	AGAAGTTCCA	4320
TTATCACGAA	TCATGGCAAT	GATATTAAAC	CAATATTTCT	TGTGAAAGTA	AACAATAGCC	4380
GGTTCTCGAG	TGACCCAACG	ACGACCATCA	CTTTCGGTAA	CAAGTGTATG	ATCGTTGACA	4440
CCAATAATGG	CGTTTTCTGT	TGTTTTTAGT	ACCATGGTGT	CCCGCCAAGT	TCGGTGGAGA	4500
CTCCCATCAT	GCTTATAACT	TTGAATTGTA	ATAAAGTCGC	CTTCTTTTGG	AAGCTTCATA	4560
ACTAACCAAC	TTTCTACAAT	TTATAAGTTT	ATCATTTACT	ATTGTACCAT	AAAATTACCC	4620
AAAATCTGTG	AATTTCACTT	GGAAATATTA	AAGATATTCT	CTAAGAGCGC	TTGCTATATC	4680
CGAAAAATCG	TAGCCCTTTC	GTGCTAAAAC	TTGAGTTAAA	CGCTGCTTCA	GTTCGTATCC	4740
TTCATACTTT	CGGGCATACT	TAGTATATTG	CTTATCAAGT	TCCTTGAAGA	TGAGTTCCTG	4800
AGTCGTTTCT	TCATCAACTT	GACTATCCAA	TTCGTCAAAG	GCAATTTTAG	CATCAAAATA	4860
AGAGAAGCCC	TTGTTAGTCA	AGTTCTGGAT	AATCTTATCT	TGCAGGGCAC	GAGCTGGAAG	4920
TTTTCCCTCA	TATTTTTTCA	ATAGTTTATT	GGCTACACGT	TGAGCAACTT	CCGAAAAATC	4980
AAAATCATTC	AAGATTTCTT	CTATAGTAGA	TTTTGAAATT	CCTTTTGTG	CTAATTTCTG	5040
AGTCAGTACA	TAAGGTCCTT	TGTCTCCTGA	AAGTTGATTG	GCATTGATGA	TAGCATAAGC	5100
GTA CTGGCTA	TCATTAATCC	ACTTCTCTTC	TTTAAGATTA	GCAATGACTT	GAGAAACGAT	5160
GTTTTCATTA	ATATCATATT	TTTTCAGATA	TTCTCTGACC	TCTTTTTCAG	TACGTGCTTT	5220
AAAGGATAAG	TGGTAGAGGG	CCAGATTCTT	ACCATAAGAA	AATTGAGCAA	AGTCTTGAAT	5280
CTCTTTCAAT	TCCTCTTCGC	TTATCACCTT	ATCTCTCGAT	AACATAAAAC	GAACAATTGT	5340
GTCTTCGGTG	ATATAGCATT	TGTCG				5365

(2) INFORMATION FOR SEQ ID NO: 78:

- (i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 3636 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 78:

TTTCCAGAAA	GAAGTTGAGT	AAAGTCTTTA	TCAAAGAGAA	TGACTTCCGT	ATTGGAAGTG	60
ACATTAGGTT	TTATTTCTAC	TTTACTAGCG	TCCGCCCTAG	CATTTTCTAA	ATCTTTAATC	120
TCTTCTGTTG	CCCTATTTAT	AGCCAGCTGA	ATAACTGCTT	GAGGATTTTC	ACTCAGTCCA	180
TGAAGCTTAT	CGTCCACCGA	AGTATAAAGA	CTCGAATGCA	TGACTTGTA	AATAATCAGA	240

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GTCATTGTAG	AAAAAATCAG	GGTGAAGACA	CCGAAGTTGC	GGATAAAATA	ACTAAAGTCA	300
TCCGCATACC	ATGTTTTTTT	AAGTTTACTG	AACATCTTTT	AAAAGATACC	CAACACTACG	360
CAAAGTTTGC	AAATTCTCTG	CAAAAGTGGT	TCCCTTTAAT	TTCTTACGGA	CTTTTGAAAC	420
ATAGACTTCG	ACAACCGAAA	TCGTTGTATC	ACTATCAAAT	CCCCATAGAC	GGTCAAAAAT	480
CTGCGTCTTA	GGCAAAATCA	CATTTTGAAT	TTGAAGGAAA	TAAACTAGTA	AATCGAACTC	540
TTTCCCCAGC	AATTCGACAG	GAGTATCTTC	AACTTTAACG	GTATTGGTTG	ATAAATTAAC	600
CACGATATTC	CCATAAGTCA	AGGTGTTTTT	ATTAACTTTC	CCTGAACGTT	TGAGAAGGGC	660
CTGAATCCGC	ATTTTAAGTT	CTTCTAGGTA	GAAAGGTTTG	GTCAGATAAT	CATCCGCTCC	720
CAGTTCAAAT	CCATGTCCCT	TGTCATCCAA	ACTTTCCTTG	GCAGTCATAA	TCAGAACTGG	780
TGTCGTAATT	CCCTTTTCAC	GCAATTCTTT	TAAGACTTGG	AAACCATTTT	TTTCTGGCAA	840
CATCAAATCC	AGCAAAATCA	AGTCATAGAC	ACCACTCTCA	GCTTCGTAGA	GACCTTCTTC	900
TCCATCAAAT	ACCTGCATAA	CATCCGCAAA	ATCGTCTAAA	AAGTCAAATA	CTGAATTGTA	960
CAGACCTAGG	TCATCCTCAA	CCAATAAGAT	TTTTATCATG	AGAAACTCCT	CCTTATTAAA	1020
ACTATTATAC	CAAATTTGCC	TTAAAAAAA	CTCAACTCTC	TGCATTTTAC	ATGAGATAGC	1080
TGAGTTTTCT	TTTTATTTTA	GGCTATTTTA	TGCATTTCCG	TATTGAAGAA	CAACTGCTTC	1140
GACTGCAGCT	TTTTCACGGC	TAATCAAGTC	AACACGCGCT	GCAATTTCCCT	TGATTCCCAT	1200
ACCGATGTTA	CGGCTAAGAG	CAAGGTCAGA	AAGTTGCGGT	TCAAAGAACT	CCTTGTATTC	1260
CGCCAAGCGT	TGCTGAGTCT	TAAATACATG	AGCAGGAAGG	ATAACAAAGC	TATCAAAGCT	1320
CATATCTCCT	CCAAGGGCTG	CCTTAATCCA	AGCCCAGTTT	TCACGCGCCC	AAGACCAAGC	1380
TGTTTTCTGA	GTTGCTTGAT	GAGCTAGGAA	TTGGTAATAC	CAAGCAGACA	AGTCTGTGG	1440
TTTGACCACA	AATTTGTCTT	TCCAAGAAGT	AATCAGGTTT	TGGATATTAT	CCGCATCTGT	1500
ACTGTATGCA	AGAGCTGCTG	CCAACTGGCG	TTTAAAGACA	GCATCTGTTG	CGTGAGTATA	1560
AGTATCAAGA	TAAAGTGCTA	ACAAGTCTTT	AGTCTCATGA	TGTTTCATCT	CATTAATCAG	1620
AACTTGTGAG	CGAATAGCTG	CTGGGAGTCC	TGCAAGATTC	TCCTTGTGTG	TTGCGAAGAT	1680
TTGGCTAGCG	ACTTGACTAG	CTTCTGCATC	ATTTGAGCGA	ATCATCATCG	AAACAGCCAG	1740
CTGACGAACC	AATTCATCCT	CATCTGATTC	TCCGTCTTTA	GCTTCAAAAC	CAAGACGGTC	1800
ATAGTTATGA	CGAGCCAATT	TAGCAACCAG	TCCTTTGAAG	GCTGTTTCAG	CATCCGTTCC	1860
TTTATCAATA	AAGCGCTCAA	GGGCTGAAAT	CAC TTGAGAA	ACAGCTGAAA	CCACCAGATA	1920
AGACTCTTCC	TTAGCAAGTT	TATCAAGAAC	TGGAAGCAAG	TCTGCATAAG	AAATGTGCCC	1980
TGCCTCAGCC	AACAAACGAC	GTTCTTGAAC	AATTTGCAGT	TTGCTTGTGT	TATCAAGTGT	2040

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CTCTAGCTCA GCAAGAACAG CTGCTAACAA GTCTCCTTGA TAGTCGGTAA TATAGTGGGC	2100
AGTATTTTCA GTGTTGAGAC GAAGAGCTCC TTCATTTTCA GCAAGAAGAG CTGCGTAGCC	2160
AGGGATTTTCG ATACTTTCAG TTTCGAGTGT ATCAGGCAAG CCTTTCAGT TGCTATTGAG	2220
GGGCACCACC CAGACACGGT TCTTGTCTTC GTTCTCACCG ATGAAGAATT GTTTTTGTGA	2280
AATCTTCAAG ACATCATTTT CAACTTTAAC AGTAAGAACT GGGTAACCAG GCTGTTCCAA	2340
CCAAGAATCC ATGAAGGCTG CGACATCACG TCCTGACGCT TGACCAAGGG CATCCCAAAG	2400
GTCACTACCA ATGGTGTGTC TGTATTGGTG TTTTTCAAAG TAGGCGTGCA AACCTTTAGC	2460
AAAATCAGCA TCTCCTAGCC AACGGCGAAG CATGTGCATG AGACGGCTTC CTTTGGCATA	2520
GACGATAGCG CCGTCAAAGA GTGTATTGAT TTCATCTGGA TGTTTAACTT CGACGTGGAC	2580
AGACTGAACG CCATCAGTAG CGTCACGTTT AAGAGCAAGA GGTACTCCAC CTGTTTGGAA	2640
ATCTTCAAAG ATATTCCAGC TTGGTTCGAT GGTATCCACA CAGACGTATT CCATCATATT	2700
AGCGAAACTT TCATTGAGCC AAAGGTCATC CCACCATTTC ATAGTCACGA GGTTCCTAAA	2760
CCATTGGTGA GCCAATTCAT GGGCCACAAC AAGGGCAACT TGTGACGGC TAGCAAATGT	2820
AGAGTTCTCA TCGACAACCA AGTAAACTTC ACGGTAGGTC ACAAGACCCC AGTTTTCAT	2880
AGCACCAGCT GAGAAGTCAG GAAGGGCGAT GTGGAGAGAT TGAGGAATTG GGTACTTAAC	2940
TCCATAGTAA TCTTCGTAAA ACTCGATAGA GCGAACAGCG ATATCCAGTG AGAAATCAAG	3000
ATTTGAAAGT GGATGTGCTT TGGTTGAGTA GACACCTACC AGGGTACCAT TTTAGTTTT	3060
AGCGGTCACC CCTTGCAAAT CACCAGCAAC AAAGGCCAAC AAGTAAGAAG ACATGCGAGG	3120
TGTTGTCTCA AACTTCCAGA TACCTGTTTC CTTACGGTTT TCAACATCGA TTTCTGGCAT	3180
GTTTGACAAG GCCAATTCAC CTTCTGCTTG GTCAAAGCGA AGAGAGAGGT CAAAAGTTGC	3240
TTTGGCTTCA GGCTCATCCA CACATGGGAA AGCTTCGCGC GCAAAATGGC TCTCGAACTG	3300
AGTAGACAAG ACCTCCTTCT TGACTCCATC AACTGTATAA TAAGAAGGGT AAATCCCTGT	3360
CATGTTGTCT GTAATTTTAC CAGAAAAGGC AAGAACCAAT TCAACTTGAC CAGCCTCAGC	3420
CAATTCGATA TGAAGGGCTT CATTGTCATG GTCAACTGTA AATGGACGAG CTTGACCTGC	3480
AACTTCTACA GAGGTGATTT CCAAATCTTT TTGGTGGAGG GAGATGCGGT CACTCTGTGC	3540
TTGACCAGTG ATGGTCACTT TCCCAGAAAA AGTCTTGGTC TCACGACTCA AATCTAAAAA	3600
TAAATCATAA TGTTCAAGAA CAAATTGCTT AATGGG	3636

(2) INFORMATION FOR SEQ ID NO: 79:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 5066 base pairs

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(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 79:

ATAGCGTGTA ATAATCGATT TTAGAGGTAC CATAAGCCAC CTCCTACAAA TAGAAACCGA	60
TATAAATCAA TGCCTTCCAC CCTTAGACTT CCCTAGTTCC TGTCTCAAGC GAAACATTTT	120
TTTGAAACAG GAATAAGTTA ACCAATTCAT ACCAATAGCT AGCAGAATAA AAAGAAACCA	180
AATGCCCCAT AACTTGATAT CTGTCACATT TCTCAAGACG GTATTGAAAA ACAGAACTGA	240
AACAACTGTC CAAGCAAGGC TAAAAAGAGA ATAGAAGGGG ATGTAAAACC AGTAAAAATA	300
ATAAAAAATT GGAAAAAAT TACTATTTCT GTTGGCCTTT TCAATCCAGT TATCAAATA	360
AAAGTACGGT GCTAAAAGTA AGAATTTAAA CAAATGTTCC ATCACCGACA TCCCCCTTC	420
TTTTGATAGC GTTTTCTATT ATTTTATTAT ATCAAAAAA TCCGGAAGT TCATTCCAGA	480
TTCTACTTTT TTATTGCGT TTTCTTGCGA TGAGATGAAT CGGTGTTCCC TCAAAAACAA	540
AGGCCTTGCG GATTTGATTT TCCAAGAAAC GCAGGTAAGA AAAGTGCATG AGTTCTTCTT	600
CATTGACAAA GATGACAAAG GTTGGTGGTT TGGTTGCCAC TTGGGTCCGA TAGAAAATCT	660
TGAGACGTTT TCCTTTGTCT GTCGGTGTG GGTGATGGC AATGGCATCC ATGATGACAT	720
CGTTCAAGAC AGCTGATGGA ATACGTGTAT TTTGACTTTC GCTGATTTC TTAATCATCT	780
CAGGAAGTTT GTGGAGACGT TGCTTGGTTA AAGCTGATAC AAAGATAATC GGTGCGTAAG	840
GCAGGTATTG GAACTGCTCA CGGATATCTT CTTCCAGTT TTTCATAGT TGGTTATCTT	900
TTTCAAGCGT ATCCCACTTG TTGACCACGA TAATCATCCC TTTACCAGCT TCATGGGCAA	960
ATCCTGCGAT ACGCTTGTCG TACTCACGAA TGCCTTCTTC CGCATTGATG ACCATCAAGA	1020
CCACATCTGA ACGGTCAATA GCACGCATGG CACGCATAAC AGAGTATTTT TCAGTATTTT	1080
CATAAACCTT ACCAGACTTA CGCATACCAG CCGTATCAAT CATGGTAAAC TCTTGACCAT	1140
CTGTATCTGT AAAGTGGGTA TCAATGGCAT CACGAGTTGT TCCAGCAACA GGAAGTACCA	1200
TAACACGGTC TTCTCCCAAG ATAGCATTGA TCAAGCTTGA TTTTCCAACG TTAGGACGAC	1260
CAATCAAGCT AAACCTAATG ACATCTGGAT TTTCTTCTC ATATTCATTT GGAAGATTTT	1320
CTACGATCGC ATCTAGCACA TCCCCTGTAC CGATTCCATG GACAGATGAG ATAGGCAATG	1380
GTTCAACCAA ACCGAGAGCA TAGAAATCAT ATATATCATT TCTCATCTCA GGGTTGTCCA	1440
CCTTGTTGAC TGCGAGGATA ACTGGTTTGT GGGTCTTATA AAGCTTACGA GCTACGTATT	1500
CGTCTGCATC AGTAATTCCT TCCTTACCAG ACACGACAAA AACCATAACA TCTGCTTCTT	1560

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CCATGGCAAT TTCTGCCTGG TGCTTGATTT GTTCCATGAA AGGAGCATCG ACATCATCAA	1620
TTCTCCTGT ATCAATCATG CTAAAAGAAC GATTGAGCCA CTCACCCGTT GCATAAATAC	1680
GGTCACGTGT CACTCCTTCG ACATCTTCTA CAATGGAGAT TCGCTCACCA GCGATCCGAT	1740
TAAATAGGGT TGATTTCCCA ACATTGGGAC GTCCTACAAT GGCAATAGTT GGTAGGGCCA	1800
TAATTTCTCA CTTTCTACAA TAATTTCTTC TGTTCAAGAT TTTTCTAGT TGAGCTTGGT	1860
TCAGCTTGAC CAAACTGTTT TGCTAGGCGC TGAATCCAGC TTGTGGTCCG ACGCGCCCCA	1920
GCATAGTCAG CCTGAACACG GTCATAAGCT TGGATTGCCT CAGTTGACTG TTCTTGGTAT	1980
TCTTCCTCAA AGACAACATT CTCTAGTGGC AGTCTCGGTT TCATATCATG ATGTTGATTT	2040
GGCACACCCA GTGCCATCCC AAAGACAGAA TAGGTGTAGT CAGGTAGGTT AAAGAGCTCT	2100
GCCACTTCTT CAGACTTGTA TCGAACCAAA CCGATAATCA CACCACCATA GCCCAAGCTT	2160
TCAGCTGCCA ACAAGGCGTT TTGTCCAGCA AGAGCTGCAT CGACCGAACT AATCAAGAGA	2220
CCTTCCACAC CTTGGGGTTG GAAGGTGTCG GTATGAAGTC GGGCTCCCTT TTCTGCTCGG	2280
TTCAAATCTC CGACAAAGAG AAGGAAAACA GCAGACTGGC GAATGGCTTC TTGAGGTACC	2340
AATTCATACA AGGCATCTTT CTTCTCTTGA CTTCTGTACCA CAATCACAGA GTAGGATTGG	2400
AAATTCCTCC AAGATGATGC CATCTGGGCT GCTGTCAAAA TCTCATTTAA GTCTACTTGG	2460
GGAATTTCTT GCTCTTTAAA CCTGCGCACT GAAGTATGAG CCTTCATCAA TTTAATGGTT	2520
TCTGTCATCG ACGGTTTACT CTTCTTAAAC GAGTCTCCTC AGCCAAATAA CGGATGCGTT	2580
CCATGACCCG TCTGGCTTCC CAGGTTTCGT CATTTCATG TTTCACTTTC GCAAAATGCT	2640
TCTCCAAATC TTCAAAGTTG AAGTTGGATG TGAAAAAGGT CCGTAAATTT TCCTGCATCC	2700
GATATTGGAG AATGACCTGC AGGATTTTCGT CACGCACCCA AACGGTTGAT TGCTCGGCGC	2760
CAATATCATC TAAAATCAGG ACCTCAGACA GCTTAATCTC ATCCACCAAG GTCTTAACAT	2820
TGCCATCACT GATAGCATTT TTGACATCAA TGACAAAGCT AGGATAGTGG AGGAGAGTTG	2880
ATGAAACACC ACGTTTTTCT GATAAATCAT GAGCTAAGGC CGCCACCATG AAACTTTAC	2940
CCACACCAAA GTCTCCATAT AAGTAAAGAC CTTTTCGAAT AGCTGGATAT TGCTCCACGA	3000
AGGCTAGTAG CTTTTCAAAA ACTGGTAAGC GCCCCAAATC ATCCAAGTCA ACTTGAGCCA	3060
AACTAGCTTT CTTGAGACTG GCTGGTAGAT TGATTAACCT GAGACGGTTC TTAATAGCCG	3120
CTTCTTTTTC AGCCGCGATT AGCTCAGGAG TTTCTTCATA TGAAACATCT GCATAACCAT	3180
GATTCTTAAC CAAAATCGGC TTGTAGCCTT TGGCAATATA ATCCGTATCC CCACGGAGAA	3240
ACTTGTACG CTCGGTGATG TACTGATTAA ACTTGGAGAT ACTGCGATTT AATTCCTTTG	3300

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GAGTTAAGGA TTCTTGCTGG ATAAAGGCCG CAACATCAGG GTCCTTCATG ATTTTCTGGA	3360
CCAAATCTTG ATAATAAAAA CGGCTGGGTT GACGTTTGAG TACGTCTCCG ACACTTTCCA	3420
TCTAATCTCC TCCTTTTCT AATCGAGCTA ATAGTTCTTG CTTCTTACGT TCTAGTTCCA	3480
GACGAGTTTC CTCGCTGGTT TCATTCTTAT ATTCCAGGATT ACTCCATTTA GGAACATTGG	3540
TTTTTCTG GGCAGTCTGA TTCTGTTTTT GTGTTTTTGC TTTCTGCCCT CGATCACGAA	3600
TTGTAATAAC GGCCTCTTCT GCCGAATGAA TCTTTTGATA GGCATAGTCA TTGGCTACCT	3660
TCATGGCATA TTTCTCATTG ATATTTGCCG AATCCACCTT ATTAAGGTC AATAAGAGAA	3720
TAATATTGAT GACTTCGTCC AGTAAGCCCA AGCCAGCCAT CTGTTGCAAG AGTTCTCTTT	3780
CTGTTTGGGT AATGGTTCCC TTGCGTGTTT GCTTGATTTC TGCTAAGAAC TGCAGGGCAG	3840
TTTTACTTTT AGCTTCTTTG ATAATGGTCG CTTCTTAAG ACTAAAGTCA GAGGAACTG	3900
GTGTTTGAGC AATTTTTTCA CGCATGCGTT TGGTTGAAAT AACCTGGGAA ACAGCTGTTG	3960
ACTTGGCCAA TTGATAGGTT TCAAACCAAG TCCATTTCTT CTCCTCGGCA ATAGCAAAGA	4020
GGTTTAAGAC ATCGGACTGC TCATCCGCAA AACGAAGTCC ATCTCGAGCC ATCAGCTGGC	4080
GAAAATGTTT CAAGTCAAAA TCATTGGCCA CTTTCTTCTT GAGACCAAGG TCTTCTTGAC	4140
TGCCTAGTTC TGCCAATTCT GGAAAGACTT GATTGAGTGA GACAGGTATT TCTTCACCAT	4200
CAGCACTTTC AACTTTCAA TCCTCCACAG CTACATCGCC AATCTTTTTC TCTAAGAGTC	4260
TGCGATAAAC AGGATGCCCC AAGAAGTCTT GACTAGATAG AGGAGCATGG AGGGCTAGCT	4320
GATAAACATC ACCCTTTTGA TAGAGGGTCA AGAGATTAAA AGCAGATAAG ATTTTCAATG	4380
ATTTTATCAG TCTATCCATC CCAAAGTTGA GATGGTTGAG AATGCTTGAA AAAAGATATT	4440
CCTTTCTACC ATTATCCCAA AAAGTATTG TATAAGATA AAGGCTCAGT GCCTCCTGAC	4500
CGATAATCGG GAGGTAGCAC TGTACCAGAG ATGAGGTATC TTGCGACACC CGATTATTCT	4560
TTAGATAAGA AAAACGGTCA ATTGGCTTCA TTTATCTTTC CTTTCTCTTT TTAGAGGACT	4620
GGGTGATTTG TTGGAGCAAG CTCTCTAACT CACTGACATC CTTAAACTA CGATAGACAC	4680
TAGCAAAACG TACATAGGTA ATCTCGTCCA ATTCAGCCAA CTCCTCCATG ACGAGTGAAC	4740
CAATGTCCTC ACTTTGAATT TCATTTTCAT TTCGACCACG GAGTTTCTGT TCGATACGAT	4800
TGACTACCAT GTTGATTTCA TCACTTGACA CAGGACGTTT CTGGGCTGAG CGGATAATCC	4860
CATTAAAGAT TTTATCTCTG GAGAATTGTT CCCGTGTGCC ATCTTTTCTT ACAACCACTA	4920
AGGTTCTTTC TTCTACTCGT TCGTAGGTTG TAAAACGGTG TTGGCATTCG TCGCACTCAC	4980
GTCTTCTACG AATGGTGTTT CCTTCTTCTG CTTGGCGACT ATCGATAACA CTTGACTTGG	5040
TAGCCCCACA TTTTGGACAG GGTACC	5066

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(2) INFORMATION FOR SEQ ID NO: 80:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 9607 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: double
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 80:

CACTTGAAGT ATTTGAAACA GCTATGGAAA ACATCATGCC TGTACTTGAA GTACGTGCAC	60
GTCGTGTTGG TGGTCTAAC TACCAAGTCC CAGTTGAAGT TCGTCCAGAA CGTCGTACAA	120
CACTTGGACT TCGTTGGTTG GTAACAATCG CTCGTCTTCG TGGTGAACAC ACAATGCAAG	180
ACCGTCTTGC AAAAGAAATC TTGGATGCTG CTAACAACAC TGGTGCAGCA GTTAAGAAAC	240
GTGAAGATAC TCACCGTATG GCTGAAGCTA ACCCTGCATT CGCACACTTC CGTTGGTAAG	300
ATAGGATGCG AAAGCGTTAA GAAAGTCCCA GAGAAAATAG GGAATCGAAG CAGGTTGCGG	360
TTGCAACCAA TGAGATTCAT CTTTTCTCC AGACTTTTAG CTTGAGCTCA ACTAAATCAT	420
GATGCTAGGA ACGGTAAGGA TGCAAGGTAA AAATAGGAAA CTGACGCAGT ATTCGACGAA	480
TACAAGGAGT TTTATCTTT TCACGCAGCA TCCCGTTCCA GCTCACATCG GCTAACTAAC	540
TTTAGCCCGG GTTCAAATTA GCTAAATCGA TTAGTATTAG CTATAACTCA GCTTACCATC	600
TCGTAAGTTG AAACCAACAA TAGCATGAAA ACATTGAGAA CCGGTAGGTC CTGCCTATCC	660
GTCTTTTATTA AAATCGTGT ATAATAGAAT AGAAATCAAA AATAAATAGG AGAAACAAAC	720
CTCATGGCAC GCGAATTTTC ACTTGAAAAA ACTCGTAATA TCGGTATCAT GGCTCACGTC	780
GATGCCGGTA AAACAACAAC TACTGAGCGT ATTCTTTACT ACACTGGTAA AATCCACAAA	840
ATCGGTGAAA CTCACGAAGG TCGGTCACAA ATGGACTGGA TGGAGCAAGA GCAAGAACGT	900
GGTATCACGA TCACATCTGC TGCGACGACA GCTCAATGGA ACAACCACCG CGTAAACATC	960
ATCGACACAC CAGGACACGT GGACTTCACA ATCGAAGTAC AACGTTCTCT TCGTGTATTG	1020
GATGGTGCGG TTACCGTTCT TGAATCACA TCAGGTGTTG AGCCTCAAAC TGAAACAGTT	1080
TGGCGTCAAG CAACTGAGTA CGGAGTTCCA CGTATCGTAT TTGCCAACAA AATGGACAAA	1140
ATCGGTGCTG ACTTCCTTTA CTCTGTAAGC ACACTTCACG ATCGTCTTCA AGCAAATGCA	1200
CACCCAATCC AATTGCCAAT CGGTTCTGAA GATGACTTCC GTGGTATCAT TGAATTGATC	1260
AAGATGAAAG CTGAAATCTA TACTAACGAC CTTGGTACGG ATATCCTTGA AGAAGACATC	1320
CCAGCTGAAT ACCTTGACCA AGCTCAAGAA TACCGTGAAA AATTGATTGA AGCAGTTGCT	1380

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GAAACTGACG	AAGAATTGAT	GATGAAATAC	CTCGAAGGTG	AAGAAATCAC	TAACGAAGAA	1440
TTGAAAGCTG	GTATCCGTAA	AGCGACTATC	AACGTTGAAT	TCTTCCCAGT	ATTGTGTGGT	1500
TCAGCCTTCA	AAAACAAAGG	TGTTCAATTG	ATGCTTGATG	CGGTTATCGA	CTACCTTCCA	1560
AGCCCACTTG	ACATCCCAGC	AATCAAAGGT	ATTAACCCAG	ATACAGACGC	TGAAGAAATT	1620
CGTCCAGCAT	CTGACGAAGA	GCCATTTGCA	GCTCTTGCCT	TCAAGATCAT	GA CTGACCCA	1680
TTCGTAGGTC	GTTTGACATT	CTTCCGTGTT	TACTCAGGTG	TTCTTCAATC	AGGTTCATACT	1740
GTATTGAATA	CTTCTAAAGG	TAAACGTGAA	CGTATCGGAC	GTATCCTTCA	AATGCACGCT	1800
AACAGCCGTC	AAGAAATCGA	CACTGTTTAC	TCAGGTGATA	TCGCTGCTGC	CGTTGGTTTG	1860
AAAGATACTA	CAACTGGTGA	CTCATTGACA	GATGAAAAAG	CTAAAAATCAT	CCTTGAGTCA	1920
ATCAACGTTT	CAGAACCAGT	TATCCAATTG	ATGGTTGAGC	CAAAATCTAA	AGCTGACCAA	1980
GACAAGATGG	GTATCGCCCT	TCAAAAATTG	GCTGAAGAAG	ATCCAACATT	CCGCGTTGAA	2040
ACAAACGTTG	AAACTGGTGA	AACAGTTATC	TCAGGTATGG	GTGAACTTCA	CCTTGACGTC	2100
CTTGTTGATC	GTATGCGTCG	TCAGTTCAAA	GTTGAAGCGA	ACGTAGGTGC	TCCTCAAGTA	2160
TCTTACCGTG	AAACATTCCG	CGCTTCTACT	CAAGCACGTG	GATTCTTCAA	ACGTCAGTCT	2220
GGTGGTAAAG	GTCAATTCCG	TGATGTATGG	ATTGAATTTA	CTCCAAACGA	AGAAGGTAAA	2280
GGATTGGAAT	TCGAAAACGC	AATCGTCGGT	GGTGTGGTTC	CTCGTGAATT	TATCCCAGCG	2340
GTTGAAAAAG	GTTTGGTAGA	ATCTATGGCT	AACGGTGTTT	TTGCAGGTTA	CCCAATGGTT	2400
GACGTTAAAG	CTAAGCTTTA	TGATGGTTCA	TATCACGATG	TCGACTCATC	TGAAACTGCC	2460
TTCAAGATTG	CGGCTTCACT	TTCCCTTAAA	GAAGCTGCTA	AATCAGCACA	ACCAGCTATC	2520
CTTGAACCAA	TGATGCTTGT	AACAATCACT	GTTCCAGAAG	AAAACCTTGG	TGATGTTATG	2580
GGTCACGTAA	CTGCTCGTCG	TGGACGTGTA	GATGGTATGG	AAGCACACGG	TAACAGCCAA	2640
ATCGTTTCGT	CTTACGTTCC	ACTTGCTGAA	ATGTTTCGGT	ACGCAACAGT	TCTTCGTTCT	2700
GCATCTCAAG	GACGTGGTAC	ATTCATGATG	GTATTTGACC	ACTACGAAGA	TGTACCTAAG	2760
TCAGTACAAG	AAGAAATTAT	TAAGAAAAAT	AAAGGTGAAG	ACTAATCCGT	CCTCACTCTA	2820
GAAGGAAGTC	ACTTAGTGGC	TTCCTTTTGT	CTTTAGAAAA	TACCTCTAAA	TATGGTAAAA	2880
TAGTAGAAGA	ATAATGTGAG	GAAAATGAAT	GTCAAATAGT	TTTGAAATTT	TGATGAATCA	2940
ATTGGGGATG	CCTGCTGAAA	TGAGACAGGC	TCCTGCTTTA	GCACAGGCCA	ATATTGAGCG	3000
AGTTGTGGTT	CATAAAATTA	GTAAGGTATG	GGAGTTTCAT	TTCGTATTTT	CTAATATTTT	3060
ACCGATTGAA	ATCTTTTTAG	AATTAAAGAA	AGGTTTGAGC	GAAGAATTTT	CTAAGACAGG	3120
CAATAAAGCT	GTTTTTGAAA	TTAAGGCTCG	GTCTCAAGAA	TTTTCAAATC	AGCTCTTGCA	3180

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GTCCTACTAT	AGGGAGGCTT	TCTCTGAAGG	TCCATGTGCT	AGTCAAGGTT	TTAAGTCCCT	3240
TTATCAAAAT	TTGCAAGTTC	GTGCTGAGGG	TAATCAGCTA	TTTATTGAAG	GATCTGAAGC	3300
GATTGATAAG	GAACATTTTA	AGAAGAATCA	TCTTCCTAAT	TTAGCCAAAC	AACTTGAAAA	3360
GTTTGGTTTT	CCAACTTTTA	ACTGTCAAGT	CGAGAAGAAT	GATGTCCTGA	CCCAAGAGCA	3420
GGAAGAGGCC	TTTCATGCTG	AAAATGAGCA	GATTGTTCAA	GCTGCCAATG	AGGAAGCGCT	3480
CCGTGCTATG	GAACAACTGG	AGCAGATGGC	ACCTCCTCCA	GCGGAAGAGA	AACCAGCCTT	3540
TGATTTTCAA	GCGAAAAAAG	CTGCAGCTAA	ACCCAAGCTG	GATAAGGCGG	AGATTACTCC	3600
TATGATCGAA	GTGACGACAG	AGGAAAATCG	TCTGGTATTT	GAAGGGGTTG	TTTTTGATGT	3660
GGAGCAAAAA	GTGACTAGAA	CAGGTCGTGT	TTAATCAAC	TTTAAATGA	CGGACTATAC	3720
TTCAAGTTTT	TCTATGCAAA	AGTGGGTAA	AAACGAGGAA	GAGGCCCAGA	AGTTTGACCT	3780
CATCAAGAAG	AATCTTGGC	TCCGAGTTG	AGGGAATGTG	GAGATGAATA	ACTTCACACG	3840
CGATTTGACT	ATGAACGTAC	AGGATCTGCA	GGAAGTTGTT	CACTATGAGC	GGAAGGATTT	3900
GATGCCAGAA	GGTGAGCGTC	GGGTTGAGTT	TCATGCTCAT	ACTAACATGT	CGACTATGGA	3960
TGCTTTGCCA	GAGGTCGAAG	AGATTGTTGC	AACAGCTGCT	AAGTGGGGAC	ACAAGGCGGT	4020
TGCTATCACG	GACCATGGGA	ATGTCCAGTC	CTTCCACAT	GGCTATAAGG	CGGCTAAGAA	4080
AGCGGGAATC	CAGCTGATCT	ATGGGATGGA	AGCCAATATC	GTGGAGGACC	GTGTCCCTAT	4140
CGTCTATAAC	GAAGTGAGGA	TGGACTTGTC	AGAAGCAACC	TACGTGGTCT	TTGACGTGGA	4200
AACGACGGGA	CTTTCAGCTA	TCTATAATGA	CTTGATTTCAG	GTTGCGGCTT	CTAAGATGTA	4260
CAAGGGGAAT	GTTATTGCTG	AATTTGATGA	ATTTATCAAT	CCTGGGCATC	CCTTGTCAGC	4320
CTTTACTACA	GAGTTAACTG	GAATTACAGA	TGATCATGTC	AAAAATGCCA	AACCACTAGA	4380
ACAAGTTTTG	CAAGAATTCC	AAGAATTTTG	CAAGGATACG	GTCCTAGTTG	CCCACAATGC	4440
TACCTTTGAC	GTTGGCTTTA	TGAATGCTAA	TTATGAGCGG	CATGATCTTC	CAAAGATTAG	4500
TCAGCCAGTT	ATTGATACGC	TGGAGTTTGC	TAGAAACCTC	TATCCTGAGT	ATAAACGCCA	4560
TGGTTTGGGG	CCTTTGACCA	AGCGTTTTTG	TGTGGCCTTG	GAACATCACC	ACATGGCCAA	4620
CTACGATGCG	GAAGCGACTG	GTCGTCTGCT	TTTCATCTTT	ATCAAAGAGG	TAGCAGAAAA	4680
ACATGGTGTG	ACCGATTTAG	CTAGACTCAA	CATTGATCTA	ATCAGTCCAG	ATTCTTACAA	4740
AAAAGCTCGG	ATCAAGCATG	CGACCATCTA	TGTCAAGAAT	CAGGTAGGTC	TAAAAAATAT	4800
CTTTAAGCTG	GTTTCCTTGT	CTAATACCAA	GTATTTTGAA	GGAGTGCCAC	GGATTCCGAG	4860
AACGGTTCTA	GATGCCCATC	GAGAGGGCTT	GATTTTAGCT	TCAGCCTGTT	CAGAGGGTGA	4920

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AGTTTTTGAC GTGGTCGTTT CTCAAGGTGT GGATGCGGCG GTTGAGGTGG CCAAGTATTA	4980
TCATTTTATC GAGGTCATGC CACCGGCTAT CTATGCACCC TTGATTGCCA AAGAGCAGGT	5040
CAAGGATATG GAGGAACTCC AGACCATTAT CAAGAGTTTG ATAGAGGTTG GAGACCGCCT	5100
TGGCAAGCCT GTTCTGGCTA CGGGAAATGT TCACTATATC GAACCGGAAG AAGAGATTTA	5160
TCGTGAAATT ATCGTCCGTA GTTTGGGACA GGGTGCGATG ATTAATCGAA CTATCGGTCA	5220
TGGTGAACAT GCCCAACCAG CACCACTTCC AAAGGCTCAT TTTCGAACGA CTAATGAGAT	5280
GTTGGATGAA TTTGCCTTTT TGGGAGAGGA ACTGGCTCGT AAAGTGGTTA TTGAAAACAC	5340
CAATGCCTTG GCAGAAATAT TTGAATCCGT TGAAGTCGTT AAGGGTGAAT TGTATACGCC	5400
TTTCATCGAC AAGGCTGAAG AAACAGTTGC TGAGTTGACC TATAAGAAAG CTTTGTAGAT	5460
TTATGGAAAT CCGCTGCCAG ATATTGTTGA TTTGCGGATT GAAAAAGAAT TAACATCCAT	5520
ACTGGGGAAT GGATTTGCTG TGATTTATCT GGCATCGCAG ATGCTGGTGC AACGTTCTAA	5580
TGAACGGGGT TATTTGGTTG GTTCTCGTGG GTCTGTGCGA TCTAGTTTCG TTGCGACCAT	5640
GATTGGGATT ACGGAGGTCA ATCCTCTCTC TCCTCACTAT GTCTGTGGTC AGTGTCACTA	5700
CAGTGAGTTT ATCACAGATG GTTCGTACCG TTCAGGATTT GATATGCCCC ATAAGGACTG	5760
TCCAAACTGT GGTCACAAAC TCAGTAAAAA CGGACAGGAT ATTCCGTTTG AGACCTTCCT	5820
TGGTTTTGAT GGGGATAAGG TTCCTGATAT TGAAGTGAAC TTCTCGGGAG AAGATCAGCC	5880
TAGCGCCAC TTGGATGTGC GTGATATCTT TGGTGAAGAA TATGCCTTCC GTGCGGGAAC	5940
GGTTGGTACG GTAGCTGCCA AGACTGCCTA TGGATTTGTC AAAGGTTACG AGCGAGATTA	6000
TGGCAAGTTT TATCGTGATG CAGAACTAGA ACGCCTCGCT CAAGGAGCGG CGGGTGTCAA	6060
GCGGACAACA GGCCAACACC CGGGGGGAAT CGTTGTTATT CCGAACTACA TGGATGTCTA	6120
CGATTTTACG CCTGTCCAGT ATCCAGCAGA TGATGTCACG GCTGAATGGC AGACCACTCA	6180
CTTTAACTTC CACGATATCG ATGAGAACGT CCTCAAATC GATGTACTGG GACATGATGA	6240
TCCGACTATG ATTCGAAAAC TTCAGGATTT GTCTGGTATT GACCCTAATA AAATTCCTAT	6300
GGATGACGAA GGCCTGATGG CACTCTTTTC TGGGACTGAT GTGCTAGGGG TAACACCTGA	6360
ACAAATTGGA ACGCCTACGG GTATGTTGGG GATTCCAGAG TTTGGAACAA ATTTCTGACG	6420
TGGAATGGTA GACGAAACCC ATCCGACAAC CTTTGCGGAA TTGCTTCAGC TGTCTGGTCT	6480
GTCCACGGT ACTGATGTTT GGTGGGGGAA TGCTCAGGAT CTGATTAAGC AAGGAATAGC	6540
GGACCTATCG ACTGTTATCG GTTGTGCGGA CGACATCATG GTTTACCTCA TGCATGCGGG	6600
TCTGGAACCT AAGATGGCCT TTACCATTAT GGAACGGGTA CGTAAGGGTT TGTGGCTAAA	6660
GATTTCAGAA GAGGAGAGAA ATGGCTATAT CGAAGCAATG AAGGCTAATA AGGTGCCAGA	6720

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GTGGTATATC GAATCCTGTG GGAAAATTAA GTACATGTTT CCTAAGGCCC ATGCGGCAGC	6780
CTACGTTATG ATGGCCTTGC GTGTAGCTTA CTTCAAGGTT CACCATCCTA TTTATTACTA	6840
CTGTGCTTAC TTCTCCATTC GTGCTAAGGC TTTTGATATC AAGACCATGG GTGCGGGCTT	6900
GGAGGTCATC AAGCGCAGAA TGAAGAAAT CTCTGAAAA CGGAAGAACA ATGAAGCCTC	6960
TAATGTGGAA ATCGATCTCT ATACAACTCT TGAGATTGTC AATGAGATGT GGAACGAGG	7020
TTTCAAGTTT GGTAAATTAG ATCTCTACTG TAGTCAGGCG ACAGAGTTCC TCATCGACGG	7080
GGATACCCTT ATCCCACCAT TTGTAGCAAT GGATGGTCTG GGAGAGAACG TTGCAAGCA	7140
ACTGGTGCGG GCGCGTGAAG AGGGAGAATT CCTCTCTAAA ACAGAACTAC GCAAGCGTGG	7200
TGGA CTCTCA TCAACCTTGG TTGAAAAGAT GGATGAGATG GGTATTCTTG GAAATATGCC	7260
AGAGGATAAC CAGTTGAGTT TGTGTGATGA GTTGTTTTAA AAAATTGCTT AATAATCTAT	7320
TAAAAGAGGC TAACGTATAT CCAATAGATT TACATTAGCT TTCTTTTTTG TTAATAAGT	7380
CTATGGAAG AGGGTGAGAG TATGTCAAAG ATGAGTATAA GCATCCGTCT GGATAGTGAG	7440
GTTAAGGAGC AGGCCCAACA GGTGTTTAGT AATCTGGGAA TGGATATGAC AACAGCTATT	7500
AATATTTTCC TTCGTCAGGC AATTCAATAT CAGGGATTAC CTTTGTGATG TAGACTAGAC	7560
GAAAATCGGA AGTTGCTCCA AGCGTTAAG GATTTAGACC AAAATCGTAA TATGAGCCAG	7620
TCTTTTGAAT CAGTCTCAGA TTTGATGGAG GACTTACGTG CTTAAGATTC GTTATCATAA	7680
ACAGTTTAAA AAAGATTTTA AGTTGGCTAT GAAGCGTGGT TTGAAGGCAG AATTATTAGA	7740
AGAAGTTTGT AATTTTCTGG TTCAAGAAAA AGAACATCCT GCCAGAAATC GTGATCATTC	7800
ATGACGGCA TCCAAGCATT TTCAAGGAGT TCGTGAATGC CATACCCAGC CAGATTGGCT	7860
TTTGGTTTAT AAAGTAGACA AGTCGGAATT GATTTTAAAT TTGCTGAGGA CAGGCAGTCA	7920
CAGTGATTTA TTTTAATCTA TTTTAAGGGG GTTCTCATGA AACTAAGAAT ATTTGCGGAA	7980
GATAAGCCGG CTAAGAAGGT ATTTGAATAT CAATTAGAAC TTGCTGATCG TACAATTCTT	8040
CTATCGACAG CACTCTTGTC AGGTGCTATT GCTTTAGCAG GAATCTTTTC TGCTTTGAAA	8100
GAAAAATAAA AATAGAAAAG AGAAAACAGA ATGGTTTTAC CAAATTTTAA AGAAAATCTA	8160
GAAAAATATG CGAAATTGTT GGTGCGAAC GGAATTAACG TGCAACCTGG TCACACTTTG	8220
GCTCTCTCTA TTGATGTGGA GCAACGTGAA TTGGCACATC TAATCGTGAA AGAAGCTTAT	8280
GCCTTGGGTG CGCATGAGGT CATCGTTCAG TGGACAGATG ATGTGATTAA CCGTGAGAAA	8340
TTCTCCATG CCCCAGTGA GCGTTTGGAC AATGTGCCAG AATACAAGAT TGCTGAGATG	8400
AACTATCTCT TGGAGAATAA GGCTAGCCGT CTTGGAGTTC GTTCATCTGA TCCAGGTGCC	8460

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TTGAACGGAG TGGACGCTGA CAAGCTTTCA GCTTCTGCTA AAGCTATGGG ACTTGCCATG	8520
AAGCCTATGC GTATCGCAAC TCAATCTAAC AAGGTTAGCT GGACTGTAGC AGCTGCAGCA	8580
GGACTTGAGT GGGCTAAGAA AGTCTTCCCA AATGCTGCGA GCGACGAAGA AGCAGTTGAT	8640
TTCCTTTGGG ACCAAATTTT CAAAACCTGC CGTGTCTACG AAGCAGATCC TGTTAAGGCT	8700
TGGGAGGAAC ATGCAGCCAT TCTCAAGAGC AAGGCCGATA TGCTTAATAA GGAGCAATTT	8760
TCAGCCCTTC ACTACACAGC GCCAGGAACA GATTTAACAC TTGGTTTGCC AAAGAACCAC	8820
GTTTGGGAAT CAGCTGGTGC TGTCAATGCA CAGGGCGAAG AATTCTTGCC AAATATGCCA	8880
ACAGAAGAGG TCTTCACAGC GCCTGACTTC CGTCGTGCAG ATGGTTATGT CACTTCTACA	8940
AAACCGCTTA GCTACAACGG AAATATCATT GAAGGCATTA AGGTGACCTT TAAGGATGGA	9000
CAAATCGTAG ATATCACTGC TGAGAAGGGT GATCAGGTTA TGAAAGACCT TGTCTTTGAA	9060
AATGCGGGTG CGCGTGCCTT GGGTGAATGT GCCTTGGTAC CAGATCCAAG TCCAATTTCT	9120
CAGTCAGGCA TTACCTTCTT TAACACCCTT TTCGATGAAA ATGCGTCAA CCACTTGGCT	9180
ATCGGTGCAG CCTATGCGAC TAGCGTTGTT GATGGAGCGG AGATGAGCGA AGAGGAGCTT	9240
GAAGCTGCAG GGCTTAACCG TTCAGATGTT CACGTAGACT TTATGATTGG TTCTAACCAA	9300
ATGGATATCG ATGGTATTCG TGAGGATGGA ACGCGGGTAC CTCTTTTCCG TAATGGGAAT	9360
TGGGCAAATT AAGGAGATAA TATGTTAGGA AGTATGTTCG TTGGTCTCCT AGTGGGATTT	9420
TTAGCAGGTG CTATGACCAA TCGTGGAGAG CGAATGGGAT GTTTTGAAA AATGTTTCTC	9480
GGTTGGATCG GAGCCTTTCT AGGTCACCTG CTCTTTGAAA CTTGGGGGCC AGTTTATCA	9540
GGAACAGCTA TTATCCCAGC GATTTTAGGA GCCATGATTG TTTTAGCTAT TTTTGGAGA	9600
CGAGGAA	9607

(2) INFORMATION FOR SEQ ID NO: 81:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 14231 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: double
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 81:

CTACAAGATA ATTCCAGCTA TAACATCCGC TATAATAGTA AGAGCGAGCT CTATGATAAG	60
GCTCATTAGT TTCACCTCCT CTCACGAACC CATAGGAACG TAATCGGTAA CCGATGACAA	120
AAATAGTATA CCACAATACA TTTAGATCAT CAAGGTCACCT TAATTCTTGA AATATCAGAT	180
CTAAGAGAAA AATCTTTAAA ATCAGAAAAA CGCATAATAT CAGGTGTGCA AAAACTTGAT	240

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ACTATGCGTT TTATTGTGGG AAGGTTTACT CCATTTTCTC CTGAAATTGA GTTTTTGTCC	300
AGCCTCTGTT TTTAGGGTTG CTAAGAAAAT AATGTCATGT GGTGAATATT TGTAATCAG	360
TCAGCAGACA GAACGATACT CTTGAAAAAT CTCTTCACAT CATGTCAGCT TCGTCTTTCC	420
GTATATATGT GACTGACTTC ATCAGTTCTA TCTACAACCT CAAAACAGTG TTTCGAGCTG	480
ACTTGATCAA TTTTCAAATC TGTACTTTGA GCAAGCTGAG ACTAGCTTCC TATTTGATTT	540
TCATTGAATA TCAGAAACCC ATTCTCCATC AAATAATTCTG ACTGCGTCTA ATAATTTTGT	600
ATCTGGCACG GTGTCTGAAA TAAAGGTTGT GTATTTGGAG AGGGGATTAA TTTTAAAAA	660
TCCAGTCTTG TAAAATTTAG AACTATCAAT CAGTAAGATG GTTTCATGGG CTTTGTCAAT	720
AATATTCTTT TTTGAAATAG CTTGGCTGAG AGAAGCTTCA TAAACATATT GGTCAATCAAT	780
ACCTCTTGCT GAACAAAATG CTAAATCGAT ATTAAAATGA TCTAATAAAG AATTTTCCTT	840
ATCATAGTTG ACCACGGAAC AGGATTGATG TTTGACCTCG CCAGATGTGA TAAAGATTTT	900
GGAGCTATCT TTAACAGTTT CAGATAGGGT TTGTGCAGTA TGTAACCAT TTGTAAAAA	960
AATCAAATTA TCAAGTTCAG AAAGATAGGG ACAGAGTTCTG TAGACAGTAG TACTAGAATC	1020
TAGATAGATA CACATACCAG ACCGAATAAA GTCTTTAGCG AGACTAGCGA TTAGTCTTTT	1080
TTGCCTAGTA CTTTCTCCTT CACGTATTTG ATGAGAAAGT TCAATTGTGT TCATAGAGGA	1140
CAGGGTCACG TATCCGTGCT TTCTTTTGAT AAGACCTTGA TTTTCTAAGA AAATTAAATC	1200
ACGACGTAAG GACTTTGTGC TGGAGAAAGT GATTTCTGCC AGCTCTTTTA CGGCAATTCT	1260
TTTTTCTTTT TTGATAATTT CAATCAATTC AAGTACACGT TCATCTTTTA TCATAAGCTC	1320
CTCCTAATTT ATCATTTCAA CTATATTATA GCACAAATTG GAGGAATTTG AATTATTTT	1380
ATGAATATTG GGTTAACATT TGAACATTAT TCAAGTAAGC GTTCACATAT TGAAAAATA	1440
AAACGTGGGG ATTATAATAA AGTTAATCma GGACGAAGAG AGAAGAAAAA TGGAAGCGGT	1500
TTTAGCAATA GATTTAGGTG CGACTTCTGG AAGACCAATC GTTGGTTACC TTTCTGAAAA	1560
TAAACTAGTA ATGGAAGAAA TAAATCGCTT TTCTAATCTA CCTATTAGAG TAAAAGGGCA	1620
TTTATCTTGG GATATTGACT TTCTACTAGC TAAAATTCTT GAAAGTATCC GCTTGGCTAA	1680
TACTAGTTAC AAGATTTTAT CTATCGGTAT TGACACATGG GGAGTTGATT TTGGACTGAT	1740
TGATAATGAA GGTAAGCTGT TATTACAACC TGTTCATTAT CGTGATGAAA GAACAAAGGG	1800
AGTGTTAAAG GAAATATCTG AAATGACTGA ATTAGAAAAA CTGTATTCAG AGACAGGAAA	1860
TCAGATTATG GAGATAAATA CCTTGTTTCA ACTCTTTAAG GCACGTCAAG AATCTCCTGA	1920
CTCTTCTAT AAGACCAATA AGATTCTTTT AATGCCAGAT TTGTTTAATT ATCTCTTGAC	1980

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AGGTAAGTTT	GCTACAGAAA	AAAGCATTGC	TTCAACAACT	CAATTATTTG	ATCCTAGGAG	2040
TCAAAATTGG	AATCAGAATA	TCTTAAACT	ATTTGAATTG	GATTCATCTT	TACTTCCTGA	2100
AATTGTTTCA	GAGGGAAATG	TTCTTGGAAG	GATAAAAGAG	GAGTATGGTT	TAGGCGATAT	2160
TCCTGTTGTG	AATGTTTGTA	GTCATGATAC	AGCAAGCGCG	ATTGTCTCAG	TACCTAAGAC	2220
AGAAGGTAGT	TTATTTATTT	CATCAGGTAC	TTGGTCTTTG	GTTGGAGTGG	AACTTACTTC	2280
ACCGATTCTT	ACTACCGAAT	CCTTCAGTTA	TGGATTTACA	AATGAAGTCG	GTAAAGATGG	2340
AGTGATTACA	TTTCTGAAGA	ATTGTACAGG	GTTGTGGATC	ATAGAGGAAC	TAAGACGTTT	2400
ATTTGAACGA	AGAGGGAAAG	CCTATTCTTT	TGATGATATT	AGGACAATGG	TGGAGAAAGA	2460
AAAAGAAAAT	CTTCCTCTGA	TTGATACTGA	ATCAACTGAA	TTTGCAACAG	AATCTGATAT	2520
GCACAAGACT	TTGACAGAAT	ATCTAGCTTA	TCATCATGAA	ACTAGAGAGT	GGACAGATGG	2580
ACAACTATTT	AAGATTGTTT	ATGAAAGCCT	AGCTGAAACG	TATAGGAAAG	CGATAGAGTT	2640
ACTAGAAGAA	CTAACTCATA	AGGTTTATAA	GAGGATATAT	GTGATTGGAG	GAGGTGCTAG	2700
AGCCAGTTAC	TTTAACCAAA	TGATTGCTGA	TAGAACTGGT	AAAGAGGTTT	TTACAGGTTT	2760
GACTGAGGCT	ACAGCTGTGG	GGAATATTGT	TGTGCAGCTC	ATAGCTATGG	GACAATTAAA	2820
AGGGATGGAA	GAGGCTCACC	ATGTTATTGA	GGAGTTTCTA	CAATTAGAGA	GTTATTACTC	2880
CCAAAAGAAT	TAAAAAGATT	GAGAGTTTGT	AAATTTGCCT	CCCTCCCCCT	TCTTAGCTTT	2940
TGTGCAGGAA	GGGGGGATAA	TTGGTGAATT	GAAAAATATT	TAGTGTTTTG	ATATGAGGAG	3000
GACAAGGATG	TCAGATGTAA	AACAAGAATT	AATTAAATAT	GGTAAGAAGC	TAGTAGAAAC	3060
AGATTTGACG	AAAGGAACAG	GTGGGAATCT	CAGCGTTTTC	GATCGTGAAA	AACAATTGAT	3120
GGCAATTACC	CCGTCGGGTA	TTGATTTCTT	TGAAATCAAA	GAATCCGATA	TTGTAGTGAT	3180
GGATATTAAT	GGAAATGTTG	TAGAGGGAGA	ACGCTTGCCA	TCTAGCGAAT	GGTATATGCA	3240
TTTGATTCAA	TATCAAATCT	GTGATGATAT	CGATGCAATT	ATCCATGCTC	ATACAACTTA	3300
TGCAACAGTA	TTAGCTTGTC	TCAGAGAACC	ACTTCCAGCG	AGTCATTATA	TGATTGCAGT	3360
GGCAGGGAAA	GATGTTCTGG	TAGCTGAGTA	TGCAACATAT	GGCACGAAAG	AATTGGCTGT	3420
GAATGCAGCT	AAAGCAATGG	AAGGTCGTAG	AGCAGTTTTA	CTAGCGAATC	ATGGAATTTT	3480
AGCAGGTGCA	CAAAATTTAT	TGAATGCATT	TAATATTGTT	GAAGAAGTTG	AATATTGTGC	3540
AAAAATTTAT	TGTTTAGCTA	AGAATTTTGG	AGAGCCAGTA	GTTCTTCCTG	ATGAGGAGAT	3600
GGAATTGATG	GCAGAAAAAT	TTAAAAACATA	CGGTCAGAGA	AAATAGGGAG	GATATTAATG	3660
TTAAAAACATA	TACCGAAAAA	TATTTCTCCA	GATTTATTGA	AGACTTTAAT	GGAAATGGGA	3720
CATGGAGATG	AAATAGTATT	AGCTGACGCG	AATTATCCTT	CTGCCTCATG	TGCAAATAAG	3780

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CTAATTCGTT GTGATGGTGT AAATATTCCA GAATTATTAG ATTCCATTCT GTATTTAATG	3840
CCATTAGATA GTTACGTCGA TAGTTCAATT CAGTTTATGA ACGTTGTTTC GGGTGATGAT	3900
ATTCCTAAGA TATGGGGTAC CTATAGACAG ATGATTGAAG GTCATGGTAC AGATCTTAAA	3960
ACGATTACTT ATCTTAGAAG AGAAGACTTT TATGAACGTA GTAAGAAAGC TTATGCTATT	4020
GTTGCTACAG GAGAAACTTC ACTTTATGCT AATATTATCC TTAAGAAAGG AGTAGTTGTT	4080
GAAAGAGAAA ATGTTCAATA GAGGAATTTT AGTTGCCAGT CATGGTAATT TTGCTAGCGG	4140
AGCTCTCATG ACCGCAGAAA TGTTTGTTGG TGAGACAACA AATGATAGAG TTAGGACATT	4200
AGGTTTGATG CCTGGAGAGA ATATTGTAGA GTTTGAGCAT TATTTTAAAA ATCAAGTGGA	4260
TGAACTGTTA GACTCAAATC AAGAGGTTAT CGTTTTGACT GACTTGATTG GAGGAAGTCC	4320
TAATAATGTG GCTTTGTCAC GGTTTTTAAA TTTGGATTCA GTTGATATTG TAACAGGGTT	4380
TAATATCCCT CTCCTAGTGG AATTAATATC AAGTTATGAT TCAAAAATCA ATTTAGAAGA	4440
AATTGTTTAC AATGCTCAAA ATAGTTTGTG TAATGTTAAA CAACAACCTA ACGTAGAGGA	4500
GGAAGAAGAT TTATGTCTAT AGAGTTTGTG CGTATTGATG ACCGTCTGGT ACATGGTCAA	4560
GTTGCTACTA CGTGGCTAAA AAAGTATGAT ATTGAGCAAG TTATCATTGT TAATGATCGC	4620
ATCTCAGAAG ATAAACACG ACAATCTATT TTAAAGATTT CTGCACCGGT AGGTTTAAAA	4680
ATTGTTTCT TTAGTGTAAG ACGGTTTGTG GAAGTTTAA ACTCTGTGCC AATAAAAAAG	4740
AGAACAATGC TGATATATAC AAATCCAAAA GATGTGTATG ATTCTATTGA AGGAAATTTA	4800
AAATTGGAGT ACCTCAATGT AGGACAGATG AGTAAACGG AGGAAAATGA AAAGGTAACG	4860
GGAGGTGTAG CTCTAGGTGA AGAAGACAAA TATTATTTTA AGAAAATAGT TGATAAGGGA	4920
ACGAGAGTTG AAATTCAAAT GGTTCCTAAT GATAAAGTTA CAATGTTGGA AAAATTTTTA	4980
TAAAAATAAT TTAAGGAGGT ACAGTATATG CTATTCACAC AAGCATTACT GGTGACATTA	5040
GTTGGGATTA TTGCCACTAT TGACTATAAT GGACCGTTAT TTATGATTCA CCGTCCGTTA	5100
GTTACAAGTG CAATGGTTGG CTTAGTATTA GGAGATTTCA CCAAGGTGT TCTTATTGGT	5160
TCAGCTCTTG AATTAAGTTG GCTCGGTGTA ACAGGTATTG GAGGTATATC TCCACCAGAT	5220
ACTATTTTCA GTGCGATTAT TGGTACTGCA TTTGGTATTT TATCTGGTCA AGGAGAAACT	5280
GCTGGTATCG CTATAGCAGT TCCAATTGCA GTTGCTACCC AACAGTTGGA TGTCTTGCA	5340
AAAACTTTAG ATGTTTATTT TGTGAAAAA GCTGATAATG ATGCTAAAA CGGAGATTAT	5400
TCAAAGATCG GTTTTTATCA TTATTCAAGT TTGGTTTTAA TCACGTTATT TAAAATTGTA	5460
CCAATTTTCC TAGCTATTAT GCTTGAGGGG GAATATGTGG CAGACTTGTG TGCTAAGGTT	5520

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CCACCAATCG TTATGCAGGG ACTTAACTCT GCAGGTGCTT TACTACCTTC AATTGGTTTT	5580
GGTATGCTTT TAAATATGAT GCTCAAGAAA AATATGTGGG TATTCTTGTT GATTGGATTC	5640
ATTTGTTCTG TGTATGGAGG AATGTCAACC ATTGGGATCT CACTAGTTGG TATTGCGGTA	5700
GCATACTTCT ACGATATGAT TGGAAGCAAA CCACAAGAAA CAACTTCAAG TAGTGATGTT	5760
GAGGAGGATC TTGATCTATG ATGAATAATA AAGTAACTAA AGTTGAACTT AAAAAAGTTT	5820
TCAAACGAAG TTTTATGTAT GGTTCCTCAT GGAACATGA GAGAATGCAG AACCTAGGTT	5880
TTCTATATAC AATTCTTCCA GTATTGAAAA AACTATACCC AGACAAAGAT TCAGCTTCTC	5940
CTGCAATGAA ACGTCACCTT GAGTTTTTCA ATACTCATCA AACAGCGGCA CCATTTATTC	6000
TTGGAGTTAC TTCCGCTATG GAAGAACAAG AAGGAAATGA AGGTGCAGCT TCAATTACTG	6060
GTATTAAAGT TGGCTTGATG GGGCCACTGG CTGGTCTAGG AGATAGTTTG TTCTGGCTGA	6120
CACTAGTTCC TATCTGTTTT AGTATTGGTG CGTCTTATTC TAAAGACGGC GGTGCTTTAG	6180
GTATCTTTAT CGCCTTAATA TTGTTTAATA TTATTAATAT TCCTGTAAAA TATTTGCTT	6240
TGAAATATGG GTATACTAAG GGTTCTAGTC TTATCCAAGA AAATAATACA AAAGGAACAT	6300
TGAATCGCGT TACGAGTATG GCGACAGCAT TAGGGCTAGT ACTAGTGGGT GGTTCGATTC	6360
CATCAATGGT TGGTATTAAT TTTGGATTAG AATTTAAGCA GGGGGAACCT GTTATTTCTG	6420
TTCAAGAAAT GATTACAAAA TTAATTCCAG GATTTATCCC TATGGCTTTG ACTTTATTAA	6480
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TTGGAGTTAT TCTAGTTGTT TTAGGAATTT TGAAGTAGTA GAAAGTGTGG AGGTGGTATT	6600
TGGGATATCA CCTCCATTTT GGAAGAGAGG TAAAGAGTGA AATTATGGTA TAAGAAAGCT	6660
GCCGCAAATT GGAATGAAGC CTTGCCGATT GGGAACGGTC ATTTAGGTGG TATGATTTAT	6720
GGTTCAGCTA CAAAAGAATG TATTCAACTA AACGATGAGA CTATTTGGTA TAGAGGAAAG	6780
TCAGATAGAA ATAATCCAGA CTCACTATTG CATCTTAAAA AAATTCGGGA ATATCTTTTA	6840
GATGGAGAAA TTCAGAAAGC CGAAGAATTG ATAAAGTTAA CAGTGTGTTG TACCCCAAGA	6900
GATCAAAGCC ACTATGAATT ACTTGGGGAA CTTTACATTG AGCATATAGA TATTCAGTCT	6960
TGTGCTCTTT CATTGTATGA AAGAGAGCTA GATTTAGATA CAGCTATTTT TAATGTTGTG	7020
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ATGTCGGCCT CTGCTGGAGG TAGAAAAGGT GTTCAGTTTA AAGTAGTATG TCATTCTAAG	7260
GTTACGGATG GTGAAGTAAG TGTATTGGGA GAGACAATAG TTATTCGGAA TGCTACAGAG	7320

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GTATTTCTTT ATCTCAAATC AATGACGGAT TATTGGGGAA ATATAGATAT TTCTTCTCTT	7380
CAGGGAGAAT TTAGTAGTAT TGATTACTTT ACAGAAAAAG ATGAACATGT AAAAAAATAT	7440
CAGGAGCAAT TTAATAGAGT TGATTTTAAA CTAGACTATA GTAAAGGTTG TCTTAGCATT	7500
CCAACGAATC TACTTCTTGA AAACACTAAA AAGTATAGTA ACTACTTGAC TAACTTGTTA	7560
TTTCATTATG GAAGATATCT GTTAATATCG TCTAGTCAAC CGAATGGTTT ACCTGCCAAT	7620
CTTCAAGGAA TATGGTGTGA TGAATTAAAT CCAATTTGGG GTTCTAAATA TACGATTAAT	7680
ATTAATACTC AAATGAATTA TTGGATGGTA GGTCCATGTG ATTTACCAGA AGTAGAATAT	7740
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ATAAAGAAG CATTTCTTTT CTTTGAAGAT TATTTATTTG AGGTGGATGG CTACTTGATG	8040
ACAGGTCCAA GTGTCTCACC GGAAAATAAA TATCGCTTAA AAAATGGTAT TGAAGGAAAT	8100
GCTTGTCTAT CATCTACAAT TGATAATCAA ATTCTAAGAT ATTTTGTGA TTCATGCATT	8160
GGCATTGCAA AACAATTAGG AGACAATTCC GATTTTATTA GTCGTGTGAA GGAGTTAAAA	8220
AAGAACTAC CTAACAACAA AATAGGTAGT AATGGGCAAA TCCAAGAATG GTTAGAAGAT	8280
TATGAAGAAG TAGAGCCTGG GCATAGACAC ATTTACCTC TATTTGGGCT TTATCCTTAT	8340
AATGAGATTG ATATTCATAA AACTCCGGAA TTAGCAGAAG CAGCTAAAAT CACTATCAAT	8400
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TGGTTAGTAA GTGGTTTGCA TGCTAGTACA CAAACAGGTT GGAGTGCTGC ATGGCTGATT	8520
CATTTTTTTG CGAGACTATA TCAAGGTGAA CCTGCTTATA ACCAGATTAA TGGTTTGTTA	8580
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TTAGGTTTGG TGAGTGGAAT TTGTGAATTA TTAGTACAGA GCCATCATAA TTGGTTATCA	8700
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GGAGGATATA AGGTATCGTT TGCTTGGAAG AATGGGGATA TAACATTCCT AAAATTGGAA	8820
GGAGGAAACA AAGATCAAAA AGTAAGAGTA AGAATATATG GCAAAAATAC TGATGTACAA	8880
AATATTGAAT TGGTATTTAA TTCAGAAAAA ATTATTGAGT TAAATTTTAA GGTATAAGTC	8940
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TTATGTTTTG GATTGTTAGC AGGAGTTAAG GCTGATAATC GTGTTCAAAT GAGAACGACG	9060

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ATTAATAATG AATCGCCATT GTTGCTTTCT CCGTTGTATG GCAATGATAA TGGTAACGGA	9120
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TATGCAGCGA TTGAACTTCA TCCTGCAAAA GTCTGTAAAC CAACAAGTTG TATTCCACGA	9240
GATACGAAAG AATTGAGAGA ATGGTATGTC AAGATGTTGG AGGAAGCTCA AAGTCTAAAC	9300
ATTCCAGTTT TCTTGGTTAT TATGTCGGCT GGAGAGCGTA ATACAGTTCC TCCAGAGTGG	9360
TTAGATGAAC AATTCCAAAA GTATAGTGTG TAAAAGGTG TTTTAAATAT TGAGAATTAT	9420
TGGATTTACA ATAACCAGTT AGCTCCGCAT AGTGCTAAAT ATTTGGAAGT TTGTGCCAAA	9480
TATGGAGCGC ATTTTATCTG GCATGATCAT GAAAAATGGT TCTGGGAAAC TATTATGAAT	9540
GATCCGACAT TCTTTGAAGC GAGTCAAAAA TATCATAAAA ATTTGGTGTT GGCAACTAAA	9600
AATACGCCAA TAAGAGATGA TGCGGGTACA GATTCTATCG TTAGTGGATT TTGGTTGAGT	9660
GGCTTATGTG ATAACTGGGG CTCATCAACA GATACATGGA AATGGTGGGA AAAACATTAT	9720
ACAAACACAT TTGAACTGG AAGAGCTAGG GATATGAGAT CCTATGCATC GGAACCAGAA	9780
TCAATGATTG CTATGGAAAT GATGAATGTA TATACTGGGG GAGGCACAGT TTATAATTTT	9840
GAATGTGCCG CGTATACATT TATGACAAAT GATGTACCAA CTCCAGCATT TACTAAAGGT	9900
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AATAGAACAA AAGCTGTATT TTGGAATGGA GAAGGTAGGA TTAGTTCATT AAACGGATTT	10020
TATCAAGGAC TTTATTGAA TGATGAAACA ATGCCTTTAT ATAATAATGG GAGATATCAT	10080
ATTCTTCCTG TAATACATGA GAAATTGAT AAGGAAAAGA TTTCATCTAT ATTCCCTAAT	10140
GCAAAAATTT TGAATAAAAA TAGTGAGGAA TTGTCTAGTA AAGTCAACTA TTTAACTCG	10200
CTTTATCCAA AACTTTATGA AGGAGATGGG TATGCTCAGC GTGTAGGTAA TTCCTGGTAT	10260
ATTTATAATA GTAATGCTAA TATCAATAAA AATCAGCAAG TAATGTTGCC TATGTATACT	10320
AATAATACAA AGTCGTTATC GTTAGATTTG ACGCCACATA CTTACGCTGT TGTAAAGAA	10380
AATCCAAATA ATTTACATAT TTTATTGAAT AATTACAGGA CAGATAAGAC AGCTATGTGG	10440
GCATTATCAG GAAATTTTGA TGCATCAAAA AGTTGGAAGA AAGAAGAATT AGAGTTAGCG	10500
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CTTACATTAA AAGGGCATA TGGTCATAAA CCTCAGATAA ATATAAGTGG CGATAAAAAT	10620
CATTATACTT ATACAGAAAA TTGGGATGAG AATACCCATG TTTATACCAT TACGGTTAAT	10680
CATAATGGAA TGGTAGAGAT GTCTATAAAT ACTGAGGGGA CAGGTCCAGT CTCCTTCCCA	10740
ACACCAGATA AATTTAATGA TGGTAATTTG AATATAGCAT ATGCAAAACC AACAACACAA	10800
AGTTCTGTAG ATTACAATGG AGACCCTAAT AGAGCTGTGG ATGGTAACAG AAATGGTAAT	10860

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TTTAACTCTG	GTTCCGTAAC	ACACACTAGG	GCAGATAATC	CCTCTTGGTG	GGAAGTCGAT	10920
TTGAAAAAAA	TGGATAAAGT	TGGGCTTGTT	AAAATTTATA	ATCGCACAGA	TGCTGAGACT	10980
CAACGTCCTAT	CTAATTTTGA	TGTGATTCTA	TATGACAATA	ATAGAAACGA	AGTTGCTAAG	11040
AAACATGTTA	ATAATTTGTC	GGGTGAATCT	GTTAGTCTAG	ATTTCAAAGA	AAAAGGAGCA	11100
AGGTATATTA	AAGTTAAATT	ACTAACGAGT	GGAGTGCCTT	TGAGTTTAGC	AGAAGTAGAG	11160
GTTTTTAGAG	AATCAGATGG	TAAGCAATCT	GAAGAGGATA	TAGATAAAAT	AACAGAAGAT	11220
AAAGTAGTCT	CTACAAATAA	GGTAGCTACT	CAAAGTTCAA	CCAATTATGA	GGGTGTAGCT	11280
GCTTTAGCAG	TTGATGGTAA	TAAAGATGGA	GATTACGGAC	ATCATTCGGT	GACTCATACT	11340
AAGGCAGATT	CTAACGCTTG	GTGGCAGGTC	GATCTGGGAG	AAGAGTTTAC	GGTTTCTAAA	11400
GTTGATATTT	ATAATAGAAC	AGATGCCGAA	CCTCAGCGTT	TATCTAATTT	TGATGTTATT	11460
TTTCTATCTT	CATCAGGAGA	AGAAGTTTTT	AGAAGACATT	TTGATAAAGT	AGTTGATGGT	11520
TTGTTATCTT	TAAAAGTACC	TTCTGTAGGG	GCTAAGCTAG	TCAAAATAGA	ATTAAAATCA	11580
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AAACTTTCTA	ATATTGCATT	AACAAAAGAA	ACTCGACAGA	GTTCAACCGA	TTACAATCGT	11700
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CATACCAAAG	AAGATTCTCC	TTCATGGTGG	GAGATAGATT	TAGCACAAAC	CGAAGAATTA	11820
GAAAAGTTAA	TTATTTATAA	TAGAACAGAT	GCTGAAATTC	AGAGATTATC	AAATTTTGAT	11880
ATTATTATAT	ATGATTCAAA	TGATTATGAA	GTTTTTACAC	AACATATTGA	CAGTTTAGAA	11940
AGCAATAATC	TATCCATAGA	CTTAAAAGGA	CTGAAGGGAA	AAAAGGTTAG	AATTTCTTTG	12000
AGAAGCGCAG	GAATTCCTTT	AAGTTTAGCA	GAGGTAGAGG	TTTATACTTA	TAAGTAATTT	12060
TAAAAATTAT	CACCCAGGCT	ACCGTAAATA	TAATGGAGAT	GGTAGTATGA	AAGAAACAGA	12120
AAAATAAGAG	GAAAATAGTA	TGATTCAACA	TCCACGTATT	GGGATTCGTC	CGACTATTGA	12180
TGGTCGTCGT	CAAGGTGTAC	GCGAATCACT	TGAAGTGCAA	ACAATGAACA	TGGCTAAAAG	12240
TGTGGCAGAT	TTGATTTCAA	GCACATTGAA	ATATCCAGAT	GGGGAACCTG	TGGAATGCGT	12300
GATTTCTCCA	TCTACTATTG	GCCGTGTACC	AGAGGCTGCA	GCTTCCCATG	AGTTGTTTAA	12360
AAAATCAAAT	GTTTGCGCAA	CAATTACAGT	TACACCATGC	TGGTGTATG	GTAGTGAAAC	12420
TATGGATATG	TCTCCAGATA	TTCTCATGCT	TATTTGGGGA	TTAATGGGA	CAGAACGCCC	12480
AGGAGCTGTC	TATCTTGCAG	CTGTACTAGC	TTCACATGCT	CAAAAAGGGA	TTCCAGCCTT	12540
TGGGATTTAT	GGAAGAGATG	TTCAGGAAGC	TAGTGACACA	GATATTCCAG	AAGATGTCAA	12600

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AGAAAACTT TTACGCTATG CGCGTGCAGC TCTTGCAACT GGCTTGATGA GAGACACTGC	12660
TTACCTATCA ATGGGTAGTG TTTCGATGGG GATTGGTGGT TCTATTGTAA ATCCGGATTT	12720
CTTCCAAGAA TACTTAGGAA TCGGAAATGA ATCGGTAGAT ATGACGGAGT TCACGCGCCG	12780
TATGGACCGT GGTATTTACG ACCCTGAAGA GTTCGAACGT GCGCTCAAAT GGGTGAAAGA	12840
AAACGTAAAA GAAGGATTCG ACCATAACCG TGAAGACCTT GTTTTAAGCC GTGAAGAAAA	12900
AGATAGACAA TGGGAATTTG TTATTAAGAT GTTCATGATT GGACGTGACT TAATGGTTGG	12960
TAACCCAAGA CTTGCTGAAC TTGGTTTTGA GGAAGAAGCG GTTGGTCACC ATGCTTTAGT	13020
AGCTGGTTTC CAAGGTCAAC GTCAGTGGAC AGACCATTTT CCAAATGGGG ACTTTATGGA	13080
AACTTTCCTC AATACTCAGT TTGACTGGAA TGGTATTCGA AAACCATTG TATTTGCGAC	13140
AGAGAATGAT TCACTAAATG GTGTGTCTAT GCTCTTTAAT TATCTATTAA CAAATACTCC	13200
ACAAATCTTT GCTGATGTGC GTACTTATTG GAGCCCAGAG GCTGTTAAAC GTGTAACGGG	13260
ACATACTTTA GAGGGTCGTG CTGCAGCTGG CTTCTTACAT CTAATCAACT CTGGTTCTTG	13320
TACATTGGAT GGTACAGGTC AAGCTACTCG AGATGGCAAA CCTATTATGA AACCATTCTG	13380
GGAGTTGGAA GAAAGTGAAG TGCAGGCTAT GCTTGAAAAT ACAGACTTCC CACCAGCAAA	13440
CCGCGAATAC TTCCGTGGAG GAGGATTCTC AACTCGTTTC TTGACGAAGG GGGATATGCC	13500
AGTAACAATG GTACGTCTCA ATCTTCTAAA AGGGGTGGT CCAGTGCTAC AAATTGCAGA	13560
AGGTTACACA CTTGAAC TTCGATGTG TCACCATATC TTAGATAATC GTACAGATCC	13620
AGGATGGCCA ACTACTTGGT TTGCTCCACG TTTGACAGGA AAAGGTGCTT TCAAGTCTGT	13680
CTATGACGTC ATGAATAATT GGGGAGCTAA TCACGGAGCC ATAACATATG GACACATTGG	13740
AGCAGACTTG ATTACCTTGG CTTCTATGTT GAGAATTCCT GTCAATATGC ATAATGTACC	13800
TGAGGAAGAT ATCTTTAGAC CTAATAATTG GTCCTTATTT GGAACAGAAG ATCTAGAATC	13860
AGCAGACTAT CGTGCATGTC AGTTGTTGGG GCCACTACAT AAATAAACT TGTATTATATA	13920
GGAGGTGAAC TTACGTCCCT CCTATCCTTT TAAAAAGATT TGTAAACAA TTCACAAAT	13980
ATTGAAAACG AATACAAAAA GTAATATAAT GATGTTAAAT AGATAGCGCG GAGGCGCAGG	14040
AGGAAAATTA TATGGCTATA TTTTATGPTC CGGCAGTCAA CCTTATTGGA AAAGGTGTTG	14100
TAAATGAAGT GGGTCCTTAT ATCAAGGAAC TTGGCTATAA AAAGGCACTT TTGGTGACAG	14160
ATAAGTACAT CGAAGGCAGT GATATTTTAC CTAAGACTTT AAAACCACTG GATACAGAAG	14220
GAATCGAATA T	14231

(2) INFORMATION FOR SEQ ID NO: 82:

(i) SEQUENCE CHARACTERISTICS:

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(A) LENGTH: 16995 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 82:

AGTTCTCTTA ACTTTTMTAG GATGGCATTG TCCGCTCTCA GGTACTCATT TTCTGCTgAA	60
GACGTTCTAA TTCTGTCTTC TCTTCAGGTC TCGTTTTTGG CTTACGTCCC ATTTTAGGTA	120
CTCTCCCTCT TGTTTTCTCA ACAATAGTAT ACCCGTTTTT CCTGTATTGT GCTAGCCAGT	180
TAAGAAGTAT CGTACGACTT GGGAGACCGT ATTCAAGAGA AACTCTATCT TTAGTCCAGC	240
CTTCATGTCA GACTTTATTA CTCATTTCTT GTTTTAAATC AGGAGAATAG TAACGATTTT	300
TTCTTTTTTT GACGAACCTT ATTCCGTAAC GATCAATCAA TTTAATCATG TACCTAATAT	360
TAGAATTGCT TATCCCAAAT TTATTTGAAA GCTTCTCTAA GCTATATCCT TGTTTTCTAA	420
GTTTCATAGAT CTGAACTTTA TCATCATAAG TTAGTTTCAT AATAAAAACA CCCCAAAAGT	480
TAGATTTTTT CTGTCTAACT TTTGGGGTGT AGTTCATGTA CACCTGATAT GATGCGTTTT	540
ATAATTTTTA AGCCTTTTTG CCCAGCCTCG TCAAAAGTAA TCTTTTGACA CAAAATCTGT	600
GACAAAACCT TAGTTTTAAA GGTTTTTAAC TTTGTATATA CTAGTTTTAA GAAAAGGAGG	660
ATGATCTAAT GGAAGAAAAA GTATCATTGA AAGTCAGGGT TCAAAAACCTA GGGACATCCG	720
TTTCAAATAT GGTATGCCC AATATTGGAG CATTATTGTC TTGGGGAGTA TTGACTGCCC	780
TCTTTATCGC TGATGGCTAT CTGCCAAATG AACAGTTAGC TACTGTTGTT GGTCTATGT	840
TAACGTATTT ATTGCCAATC CTGATTGGTT ACACAGGTGG ATATATGATC CATGGCCAAC	900
GTGGTGCCGT TGTAGGAGCT ATTGCTACTG TTGGTGCAAT CACAGGTTCT AGTGTTCTTA	960
TGTTTATCGG AGCTATGGTA ATGGGCCCCAC TGGGAGGATG GACTATCAAG AAATTTGATG	1020
AGAAGTTCCA GGAAAAAATT CGTCCCGGAT TTGAAATGTT AGTTAATAAC TTCTCAGCTG	1080
GTCTCGTTGG TTTTGCATTA TTGCTTTTGG CTTTCTACGC AATCGGTCCA GTCGTATCGA	1140
CTCTTACTGG AGCTGTTGGG AATGGTGTTG AGGCTATTGT CAATGCTCGC CTCCTTCCTA	1200
TGGCTAATAT TATCATCGAA CCGGCTAAAG TCCTTTTCCT CAATAATGCC CTCAATCATG	1260
GCATTTTAC TCCTCTGGGA GTAGAACAGG TAGCTCAAGC TGGTAAGTCA ATTCTCTTCC	1320
TATTGGAAGC TAATCCTGGA CCAGGTCTGG GAATTCTATT AGCTTATGCT GTATTGCGTA	1380
AAGGTTCTGC TAAATCTTCT TCTTGGGGGG CAATGGTTAT TCATTTCTTC GGAGGGATTG	1440
ATGAAATTTA CTTTCCTTAT GTTATGATGA AGCCTACTCT ATTTTATAGT GCTATGGCAG	1500

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GAGGTATCTC	TGGAACCTTT	ACTTTTCAAC	TCTTAGACGC	TGGTCTTAAA	TCTCCAGCTT	1560
CACCAGGTTT	TATTATTGCG	ATTATAGCTA	CGGCGCCAAA	AGGTGTTTGG	CCCCATCTAA	1620
ATGTTCTTTT	AGGTGTTTFA	GTGGCAGCAG	TTGTTTCTTT	CCTTGTAGCA	GCCCTTATTC	1680
TTCATGCAGA	CAAGTCAACT	GAGGATTCCG	TCGAAGCTGC	TCAGGCGGCT	ACCCAAGCAG	1740
CTAAGGCTCA	GTCTAAAGGT	CAGTTAGTAT	CAACTTCTGT	TGATGCAGTT	GTTTCGACAG	1800
ACTCAGTGGA	AAAAATCATT	TTCGCCTGCG	ATGCTGGTAT	GGGAAGCTCT	GCTATGGGAG	1860
CTAGTATTCT	TCGAGATAAG	GTTAAAAAAG	CAGGTCTAGA	GATTCCAGTA	TCTAATCAGG	1920
CAATCTCAAA	TTTGCTTGAT	ACACCAAAAA	CATTAATTGT	TACTCAGGAA	GAACTGACAC	1980
CAAGAGCTAA	AGACAAGAGT	CCAAGTGCTA	TTCATGTTTC	TGTTGATAAT	TTCTTAGCGT	2040
CCTCTCGTTA	TGATGAAATT	GTAGCTTCAT	TAACAGGAGC	TTCTCCAATA	GCAGAAATTG	2100
AAGGAGATAT	ACCAACTTCA	GCACCAGTAG	ATAGTCAGGA	AAGTGACCTT	AACCATATTG	2160
ATGCTGTAGT	AGTTGCTTAT	GGTAAAGCAC	AGGGAAGTGC	AACTATGGGC	TGTGAAACGA	2220
TTGGGGCTAT	TTTAGAAAC	AAGAATATTC	GTATTCCAGT	TTCTACTGCC	AAAATTTTCAG	2280
AATTAGGTGA	ATTTAATTCT	AAAAACATAA	TGATTGTAAC	AACTATTTCT	TTACAGGCAG	2340
AAGTGCAGCA	AGCAGCACCG	AATTCTCAAT	TTCTTATTGT	GGATAGTTTA	GTAACAACAC	2400
CAGAAATATGA	CAAAATGGCT	GCTAGAATGT	ACAAATAGAA	CTAGAGGTTT	CTAAATTACG	2460
AATGCTATTA	ACCAAACGAG	AAGAACAATT	ATTGAAGGCT	TTCTTACATG	TAGGGAAGCT	2520
TTCAATGCAA	GATATGACTG	AAATCTTACA	GGTTTCATCT	AGAACAATTT	ATCGAACTTT	2580
ATCAGATTTG	ACAGATAGCA	TGGAGCAATA	TGGAATCGAA	ATAACGAAGC	ATGGGAAATA	2640
CTATATTTTG	ACTGGAGAGT	TGGATGATTT	GCCGACAGAA	CTTGAAGTGT	TAGTTGAGTA	2700
TAGTCCCCAA	GAAAGACAAG	AGTTGATTAC	CTATCGCCTT	CTGACTGAGA	GTGGTTTTGT	2760
CACCAATGAA	GCATTGCAAG	AGTGCACGAA	AGTCAGTAAT	GTAACATTA	TTCAGGATAT	2820
TTCAGATATT	GATAAGCGTC	TTTTAGACTT	TGATCTGAAA	ATTGAACGAC	AAAAAGGTTA	2880
TCGGATTTCT	GGTGATTCAG	TTGGTAAGAG	AAGATTTTTG	GCTATTTTAC	TGACAAACTG	2940
TATCTCAGTA	GCAGATTTTT	CAACCGGTAA	TTTTGGGAGC	TTTGATATTT	TAGAAGCAGA	3000
TAGAACTGGG	CTGGCCAGTC	AGATTGTAA	TAAGCAACTG	TCAGGTTTTC	CAGATATGGA	3060
TGCTAGGATG	AAGATGTTTT	TTGCGATCTT	GTTATCTCTT	ATAGGTCAGG	AGCAAAACAT	3120
TGAAAATTCA	CCTAATACTA	GTAAGCAGGC	TTTGGAATTT	TCTCAAAAAA	TTTTTCAAGC	3180
TTACTCTAAG	CAGACTGCAC	AATTTTATAG	TATTCAGGAA	ATTATCTATT	TTGCGAGCAT	3240
CTTGGATGAA	TTAATCATT	AACGTCAGGA	CAATCCGCTC	TTTACGGAGA	AATTTGATGG	3300

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TGAATTTTTC	TACAATATTT	CAAATCTGAT	TGATACGGTT	TCCATGTATA	CCAAGATTGA	3360
CTTTTTTAAG	GACAAGGTTT	TATTCAATTT	TCTTTTCCAT	CATATTCGGC	TCAGTTTAGG	3420
CGTCCCTATC	CTTTTTCAGG	GTGAAAATTT	GCCAGAATCT	ATCCAGATTT	TAGTTGAAAG	3480
GAATAAATTT	CTTTATACAG	TCATCAGTCT	TTTAGTGAAT	GATATTTTTC	CGAAATATCT	3540
TCATACAGAG	TATGAGTATG	GCATGATTGC	CCTACATTTT	ATCTCTAGCT	TAGGCCGTAG	3600
TCCAGAGATT	TATCCAGTCC	GTGTTTGTCT	TTTAACGGAT	GAACGTCGGG	TCACTAGAGA	3660
TTTATTAGTC	AGTAAAATTA	AGAGTGTTGC	TCCTTTTGTA	GAGTTGATAG	ATATTCAATC	3720
TCTAGTAGAT	TACCACAGTA	TTGATCTCAG	TCAGTATGAT	TATATTTTAT	CTACCAAGCC	3780
GCTGACTAAT	CAGGAAATCG	ATGTAATTTT	TAGTTTTCCA	ACCGTCAAAG	AATTGCTTGA	3840
ATTACAGGAA	CGACTTCAGT	ATGTACAGGC	ACATCGTACA	ATTGTCGCGC	GTGATGCTAT	3900
CGCTCCAGAG	AAAAGTTATG	ACTTGCAAGA	TTATTTAATA	TCTAGTAGTC	AGCTTTTGAG	3960
TCAATTCGAG	TTGGTTCAAT	TGGAGAATAA	TCAATCATT	GAGCACACGG	TAGAACAAAT	4020
CATCCAATAT	CAGAAGAATG	TGAGTGACAG	AGCTTACCTA	ACAAGAAAAT	TGTTATCTCA	4080
CTTCCAGAAT	AGTCCTATGG	CTATTCCTAA	TACTGGTCTG	GTGCTTTTAC	ATAGTCAGTC	4140
TAGCAAAGTA	ACAACAAATA	GTTTTACTAT	GTTTGAACTC	AACTACCTA	TCTCCGCATT	4200
GTCAATGAAA	CGAGAGGAAG	AAGAGGTCAA	AAGGTGTCTG	CTAATGCTAA	TGTCTAAAGA	4260
AGCTAGCGAG	GAAGCTAGAG	ATTTAATGAC	AGCTATTAGT	CAGTCGATTA	TTGAAAATCA	4320
TCTTTATACA	GAGATTTACA	AGACGGGAAA	TCAATCCATT	ATTTATCAGA	TGCTAAATAC	4380
TATTTTAAAC	GAAAAAATTA	AGAAATTGGA	GAACTAATAT	GAACTTGAA	AAACATTTGA	4440
TTAAGCTTAA	TAAACAATTT	TCTAACAAGG	AGGAAGCTAT	TTGTTATTGT	GGGCAAGTTC	4500
TTTATGAGGG	TGGATATGTT	AATGAAGACT	ATATTGAAGC	CATGATTGAG	CGAGATAAAG	4560
AGCTATCTGT	TTACATGGGT	AACTTTATCG	CCATACCGCA	TGGAACAGAT	GCAGCAAAAA	4620
ATGATGTCCT	CAAGTCTGGT	ATTACAGTCG	TTCAAGTCCC	TAGAGGGGTT	GATTTTGGA	4680
ATGTATCTAA	CCCTCAAGTG	GCAACGGTTC	TTTTTGGTAT	TGCTGGTATT	GGTAATGAAC	4740
ACTTAGAAAT	TATTCAGAAA	ATTTCTATCT	TCTGTGCAGA	TGTAGATAAT	GTTCTTAAAC	4800
TAGCAGATGC	TCAGTCAAAA	GAGGAAGTAT	TGCGCTTATT	TGATGCTGTT	GAATAATTGA	4860
ATTTAGTCAT	TTGTCATCTA	GTATATATGT	CCCTCAAATA	GGAAAAGGAG	AAATTGAATG	4920
AAACATTCGT	TTCATTTTGG	TGCCGGTAAT	ATCGGTCGTG	GTTTTATAGG	TGAAATTCTA	4980
TTTAAAAATG	GTTCCATAT	TGATTTTGTG	GATGTCAATA	ATCAGATAAT	TCATGCTCTG	5040

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AATGAAAAGG GCAAGTATGA AATTGAAATT GCACAGAAAG GACAGTCTCG TATAGAAGTA	5100
ACTAATGTGG CTGGCATTAA TAGCAAAGAA CATCCTGAGC AAGTCATTGA AGCGATTCAA	5160
AAGACGGATA TTATTACTAC TGCAATCGGA CCTAATATAC TCCCTTTTAT CGCCGAACCT	5220
CTAGCCAAAG GAATCGAAGC TCGCCGAGTT GCAGGAAATA CACAGGCATT GGATGTTATG	5280
GCCTGTGAAA ATATGATTGG CGGGTCTCAA TTTCTTTATC AAGAAGTCAA GAAATATTTA	5340
AGTCCGGAAG GTTTGACATT TGCTGATAAC TACATAGGTT TTCCAAATGC TGCAGTAGAC	5400
AGGATTGTTT CAGCACAAAG TCACGAAGAT TCCCTTTTGT TTGTGGTCGA GCCCTTTAAT	5460
GAATGGGTCG TGGAAACCAA GCGTCTTAAA AATCCAGATT TACGTCTAAA AGATGTGCAT	5520
TATGAAGAAG ATTTAGAACC CTTTATTGAG CGAAAACCTT TTTTCTGCAA TTCTGGACAT	5580
GCAACTTCAG CTTACATTGG TGCGCATTAT GGTGCCAAGA CAATTTTGGG AGCTCTTCAA	5640
AATCCTAATA TTAAATCTCG GATTGAATCT GTATTAGCTG AAATTCGGAG TCTCTTGATT	5700
GCCAAATGGA ACTTTGATAA AAAAGAATTG GAGAATTATC ACAAAGTCAT TATAGAACGA	5760
CTTGAAAACC CTTTCATAGT GGACGAGGTT AGTCGCGTAG CTCGTACTCC AATCCGAAAA	5820
TTAGGCTATA ATGAACGATT CATCCGGCCG ATACGTGAAT TGAAAGAACT CAGTTTGTCA	5880
TATAAAAACC TACTTAAAC AGTTGGCTAT GTCTTTGACT ATCGCGATGT AAATGATGAA	5940
GAAAGTATTC GATTAGGTGA ATTGTTGGCT AAACAATCAG TCAAAGATGT TGTTATACAA	6000
GTTACAGGTT TAGACGACCA AGAATTGATT GAGCAAATTG TAGAGTATAT TTAATCTTTT	6060
TCGAAAATCT CTTCAAATCA GGTTAGCATC GCTTTGTCTT AGGCATATGT TGTTCTATCT	6120
ACAACCTCAA AGCAGTGCTT TGAGCTGACT CCGTCAGTCT TATCTGCAAT CTCAAAACAC	6180
TGTTTGAGTT ATCTGCGGTA ATCTTTCTAG CTTGTCTTTG ATTTTGTGTG TTATTTATAA	6240
GGTAAAAGAA GCTGGACAAA AAGTCTTCAA AATCGGGAAA AGGCAGCCTA TCGGGTGTTC	6300
AAAAATCTTG ATAGGATGTC CTTTATTATG GAAAGCCTTA TTGGATTTTC TCCTCAGATT	6360
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TTATGGACAG TGGGAAAATT GTTGAAAAAA ATAATGCCCA TCAATCTTTT AGTCGTCCAA	6480
GAGAAGAACG AACCAAGCAA TTTTGGAAACG AATCTTTTCG AATGCGATCT ATATAGTAAA	6540
ATGAAACAAG AACAGGACAA ATCGATCAGG ACAGTCAAAT CGATTTCTAA AAATGTTTTA	6600
GAAGTAGAGG TGTACTATTC TAGTTTCAAT CTAATATATA ACTGAAAAAT TAGATAAATT	6660
AGTTTGTGAA AATGACTAAC CAAAAGATAT CCAAAGTAGT CTAAAATTGT CTATACTTTA	6720
TGAGTGTTTT AGTTAGGAAA AAGGCTTGTT GTCTATAATT GTCTGCATTA GTCTAGATTT	6780
TATTTATAGA AAATGTTATA ATAGACTGTA TTTAAAAAAT TTTAAGGAGA AATGACAGAA	6840

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TGTCTGTATC	ATTTGAAAAC	AAAGAAACAA	ACCGTGGTGT	CTTGACTTTC	ACTATCTCTC	6900
AAGACCAAAT	CAAACCAGAA	TTGGACCGTG	TCTTCAAGTC	AGTGAAGAAA	TCTCTTAATG	6960
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AAGCTCTTTA	TCAAGATGCA	ATGAACGCAC	TTTTGCCAAA	CGCTTATGAA	GCAGCTGTAA	7080
AAGAAGCTGG	TCTTGAAGTG	GTTGCCCAAC	CAAAAATTGA	CGTAACTTCA	ATGGAAAAAG	7140
GTCAAGACTG	GGTTATCACT	GCTGAAGTCG	TTACAAAACC	TGAAGTAAAA	TTGGGTGACT	7200
ACAAAAACCT	TGAAGTATCA	GTTGATGTAG	AAAAAGAAGT	AACTGACGCT	GATGTCGAAG	7260
AGCGTATCGA	ACGCGAACGC	AACAACCTGG	CTGAATTGGT	TATCAAGGAA	GCTGCTGCTG	7320
AAAACGGCGA	CACTGTTGTG	ATCGACTTCG	TTGGTCTAT	CGACGGTGTT	GAATTTGACG	7380
GTGGAAAAGG	TGAAAAC TTC	TCAC TTGGAC	TTGGTTCAGG	TCAATTCATC	CCTGGTTTCG	7440
AAGACCAATT	GGTAGGTCAC	TCAGCTGGCG	AAACCGTTGA	TGTTATCGTA	ACATTTCCAG	7500
AAGACTACCA	AGCAGAAGAC	CTTGCAGGTA	AAGAAGCTAA	ATTCGTGACA	ACTATCCACG	7560
AAGTAAAAGC	TAAAGAAGTT	CCGGCTCTTG	ACGATGAACT	TGCAAAAGAC	ATTGATGAAG	7620
AAGTTGAAAC	ACTTGCTGAC	TTGAAAGAAA	AATACAGCAA	AGAATTGGCT	GCTGCTAAAG	7680
AAGAAGCTTA	CAAAGATGCA	GTTGAAGGTG	CAGCAATTGA	TACAGCTGTA	GAAAATGCTG	7740
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TCCTTGGGAA	TTTGCAACGT	CAAGGGATCA	ACCCTGACAT	GTACTTCCAA	ATCACTGGAA	7860
CTACTCAAGA	AGACCTTCAC	AACCAATACC	AAGCAGAAGC	TGAGTCACGT	ACTAAGACTA	7920
ACCTTGTTAT	CGAAGCAGTT	GCCAAAGCTG	AAGGATTTGA	TGCTTCAGAA	GAAGAAATCC	7980
AAAAAGAAGT	TGAGCAATTG	GCAGCAGACT	ACAACATGGA	AGTTGCACAA	GTTCAAACT	8040
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CAAGCACAGC	AACAGTAAAA	TAATCTTAAT	AAACAGAAAA	CCCACCTGAA	TTGGTGGGTT	8160
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CTGGGATGCG	GTCCCAGTTT	TCTTCGGTTA	GGATGTAGGA	TTGTTTCAGAG	GCACTTGATG	8280
TGACTGTTTC	AGAGACAGCT	TGTTGCTTTT	CTTCAACATT	CTCCAGTAGA	TCACTGAAGC	8340
GTTCAATCAG	ATAGGTTTTT	CGGGCAGTTC	CGATGTGTTG	GGTAGCATAG	TCGAAGGCTT	8400
GTAATTCGCC	TAGTAAGATG	AGTTTGCTTT	TGGCACGTGT	AATGGCTGTG	TAGATGAGAT	8460
TTGCTCCAG	CATACGTCGG	CTAGCACTAG	TAATCGGTAG	GATGACAACT	GGGAACTCAC	8520
TTCCCTGAGA	CTTATGAATA	CTCATGGCAT	AGGCCAAGCG	AATCTTGTAC	CATTCGTTAC	8580

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GGGGTAAGA GACTTCATTA CCATCAAAAT CAATGACAAAT CTCGTCTTGT TTCGATTCCG	8640
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CAGCATCGTT AACCAAATGA ATGACCCTGT CTCTCTTACG ATAGTGACAC TGAGGAGCTT	8760
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AGTCTTGAAT CTGAAAGGCT AGTTTGTTGG GAATGCCGTA GTTGGCTAGT TTGGCCAAAA	10080
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AGAGTCCTGC GATGCCTTCT AACTTTTCTG GGTGTTGCAA AATTCGTCA ATGGTATTTT	10200
CGCCATAGGT ATCCACGATT TTCTGAGCTG TCTTGAGACC AATCCCCTTG AAATGGCTAC	10260
TTGAAAAGTA CTTGACCAAG CCCTTACTAG TTGGTTTTGC GCGATCATAA CGACTGATTT	10320
GCAGTTGTTT TCCATACTTG GAGTGCTGGA CAATTTGCCC CCAAAAAGTA TAGTCTTCGC	10380

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CCTCAATTAC ATCAGCCATG GTTCCTGTGA CAATGATTTT AAAATCATCA AAATCCTCTG	10440
CGTCCGTATC GTCGATTTCT AGGAGGAGGA TGCATAAAA ATTGCTGGGA TTTTCAAAAA	10500
TAATCCGTTC AATAGTTCCT GAAAAATAAA CTTCCATAAA ATTCCTTTGC ATGAATAGGT	10560
GAGAGTTGGG ATTGTTTTTA TTTTATACTC TTCGAAAATA TCTTCAAACC ACGTCAGCTT	10620
CCATCTGCAA CCTCAAAACA GTATTTTGAG CTGACTTCGT CAGTTCTATC CACAACCTCA	10680
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TATTTGTAAA TAAACAATCA CTTCTCACGA TAGAAGAAGA GGCTGAGATT GGTGATTCTC	10800
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GCCATCTTCC TCATGGGCCA CCACGATATC AAAACGGTCA ATAGGAAGGT GTTTTACAAC	11280
GAAGAGAATT TCGCCATCCG CTAGGGTCGG ATCCATGGAA TGTCTTCTA CGCGAACATT	11340
GCTCCAAAAA AAGATACGAC TTAAAGCTAG TAATGACAGA ATTAGGAGGA ACAATCCCCA	11400
CTCTTTTAAG AAATTTTAA ATGAATTCAT AACTTACCTT TCTAAGCGTT TTTTCGCTTT	11460
TTCAGTGTTT TTAAAGTGCA ATTTGGCGCA GAAGCTGAGT CCCTGCATAC CATAGGCTTG	11520
CAAAATCTGG CTAGCCACCT TGTCAGAAGC CGTTCCAGCT CCACTTGGA GCTGATAACC	11580
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GGCAACCTTA ACCGAAACAG CGTTGTAGCG GTCTCCGATG ACCTCGTTGT ACTTGCTGGG	11880
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CTTTTGGTCG GTCAGAGTCT TAGAATCCCC CACACCGAGT TTTTCGTAAA AGTCGTGCTG	12000
GTCAGGTGTG ACAAAGGCAG CCACAACCTG AAGCCACCA AAGTAGGAAC CATTTCCAC	12060
CTCATCTGTC CCAATTAAAG GAAGATTTTG TCCGCTGGTT TGCTCTACAG CTTGATAGCC	12120

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AAAGAACTG	GCGTATTTT	CAGCCCCTC	ACCCTGAAGC	AAGATTTTC	CAGAAGTATA	12180
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AGCCAGACTG	GTTTGATAGT	GTTCAAGAAA	AGCCTGAATA	TCCTTTTCGC	TTGGTGTGAG	12300
TGTGATACTT	GCCATAGTTT	CTATTGTACC	ACAAAAGCAG	TAAAATTTGT	AAAACTGAC	12360
AAAATTACCG	AATTTTGGTA	TAATATCGTG	AGGTGAATTT	TATGGCAAAT	CTAAATCGAT	12420
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TGGAGGAAAT	CGCTAAGGTT	GCGACAGAAA	AATACCAAGC	AATTAAAGAA	CAAATGCCTA	12540
GCGCAGATGA	TGAAACAATC	GCTCTTTTGT	TGGCAGTCAA	CTGTTTATCA	ACTCAGCTCA	12600
GCCGTGAGAT	TGAATTTGAC	GATAAGGAGC	AAGAGCTAGA	AGAACTCCGT	CACAAGCTTG	12660
TGACTTGTA	GCAAGAACAG	AGCAAGATTG	AGGATTCCTT	ATGATTTTAT	TCCTTCTTCT	12720
ATTGGTCTTG	GTTTGGGGAT	TTTATATCGG	CTATCGGAGA	GGCCTGCTCT	TACAGGTTTA	12780
TTACCTGATT	TCAGCCATGG	CATCGGCTTT	TATGGCTGGC	CAGTTTATA	AGGGGCTTGG	12840
AGAGCAATTC	CATTTATTGC	TCCCTTATGC	AAATTCGCAG	GAAGGTCAGG	GGACTTTCTT	12900
TTTCCCATCG	GATCAACTCT	TTCAGCTGGA	TAAGGTCTTT	TATGCAGGTA	TCGGCTACTT	12960
GCTTGATTTT	GGGATTGTCT	ATAGCATTGG	TCGTTTACTT	GGTCTTCTCT	TACACTTGAT	13020
TCCTAGCAAA	AACTGGGTG	GTAAGTTGTT	CCAAGTTTCA	GCAGGTATCT	TGTCCATGTT	13080
GGTGACCTTA	TTTGCTTGC	AAATGGCCTT	GACAATCTTG	GCGACCATCC	CCATGGCAGT	13140
TATACAAAAT	CCTCTTGAAA	AGAGTATCGT	CGCAAAACAC	ATCATCCAGA	GCATACCGGT	13200
AACAACCAGT	TGGCTCAAAC	AAATCTGGGT	GACAAATTTA	ATCGGATAAA	AAGGGCAGGA	13260
GTTTTCTTAG	CCCTTTGTTT	ACAGATTTGA	CTCGAATCTA	TCAGAATGTA	AAAAGCTACC	13320
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AATTGAGACA	ACTGGCTCCG	ACTGCCAAAG	CAGATAAAAT	CAAACAGGCT	TTTGCTGAGA	13500
TGAAGGAAAT	GCAGGCTCTT	TTCGTGAGC	AACCGCATTT	TACTATTCTC	TCAACTAAGG	13560
AAATTGCAGG	AGTCTGCAAG	AGGTTGGAGA	TGGGAGCGGA	TCTCAATATC	GAGGAGTTCC	13620
TACTCTTGAA	ACGCGTGCTT	CTTGCCAGCC	GAGAACTTCA	AAATTTTATC	ACCAATCTGG	13680
AAAATGTCAG	CTTGGAAGAA	TTAGCCCTTT	GGTTTGAGAA	ATTACATGAT	TTTCCGCAAT	13740
TACAAGGAAA	TCTTCAGGCC	TTAATGATG	CGGGTTTCAT	TGAAAATTTT	GCCAGTGAAG	13800
AATTGGCGCG	AATCCGTGCA	AAAATACATG	ATAGCGAGAG	TCAGGTACGC	GATGTTTATC	13860
AAGACTTGCT	CAAGCAAAAA	GCGCAGCTGT	TGACGGAAGG	AATTGTTGCT	AGCAGAAATG	13920

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GCCGTCAGGT	TTTACCAGTC	AAAAACACCT	ACCGCAATAA	GATTGCAGGT	GTCGTTTCATG	13980
ATATTTCTGC	TAGTGGAAAC	ACCGTCTATA	TCGAACCCCG	TGAGGTAGTC	AAACTGAGCG	14040
AAGAAATTGC	TAGTCTGCGA	GCAGATGAGC	GCTATGAAAT	GCTTCGCATT	CTCCAAGAAA	14100
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CCGTGCGAAA	TGATGCTCTAT	TTTGGTCAAG	ATTTAACAGC	TATTGTTCATT	ACAGGTCCCA	14340
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CAGGATTGCC	GATTTTAGCA	GACAAGGGAA	GTCGTGTTGG	TATTTTGTAA	GAAATCTTTG	14460
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TGGGGGCTGG	TACTGATCCC	CAAGAGGGAG	CAGCCCTTGC	CATGGCTATT	CTGGAGGACC	14640
TTCGCCTGCG	TCAAATCAAG	ACCATGGCGA	CGACCCACTA	TCCAGAACTC	AAGGCCTACG	14700
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CGACCTATCG	CTTTATGCAG	GGTGTTCCTG	GCCGAAGTAA	TGCCTTTGAA	ATTGCCAAAC	14820
GTCTAGGCCT	ATCTGAAGTT	ATCGTAGGAG	ATGCCAGTCA	GCAGATCGAT	CAGGACAATG	14880
ACGTCAATCG	TATCATTGAG	CAATTAGAAG	AGCAGACGCT	GGAAAGCCGC	AAACGTTTGG	14940
ACAATATCCG	TGAGGTGGAG	CAAGAAAATC	TCAAGATGAA	CCGTGCGCTA	AAAAAACTCT	15000
ACAACGAGCT	TAATCGTGAA	AAGGAAACCG	AGCTTAACAA	GCGCGGTGAA	CAGGCTGCTG	15060
AGATTGTGGA	TATGGCCCTA	AGTGAAAGTG	ACCAGATTCT	CAAAAATCTC	CACAGTAAAT	15120
CCCAACTCAA	GCCCCACGAA	ATCATTGAAG	CCAAGGCCAA	GTTGAAAAAA	TTGGCTCCTG	15180
AAAAAGTGGA	CTTGTCTAAA	AATAAGGTCC	TTCAAAAGGC	CAAGAAAAAA	CGAGCTCCAA	15240
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AGTTTGATCT	TGTTCAAGCC	CAGCAAGAAA	AACCAGTCAA	GAAGAAACAG	GTCAATGTTG	15420
TGAAACGAAC	TTCTGGGCGA	GGACCTCAAG	CTAGACTGGA	TCTTCGAGGC	AAGCGCTATG	15480
AAGAAGCCAT	GAATGAGCTA	GATACCTTCA	TCGACCAAGC	CTTGCTTAAC	AATATGGCTC	15540
AAGTTGATAT	CATCCATGGT	ATCGGAACAG	GAGTCATCCG	TGAAGGAGTT	ACCAAATACT	15600
TGCAAAGAAA	CAAACATGTC	AAGAGTTTCG	GCTATGCCCC	ACAAAATGCT	GGAGGCAGTG	15660

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GTGCGACTAT TGTCACTTTT AAAGGATAGC AGTATTCTGG ACTTTATAAA GTAAAAACTG	15720
TTGAACTAAT TTTTACTAAT AAACACATTG ACAAAGCCA ACATTTTTTG TAAAATTAGA	15780
ATCAATTAAA TACCAACACC GAATGAAGTT TAATAGAAGT GGGGAATCGT TTGATTTTCC	15840
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CTAAGCATTG CAGAGTACAT GTATCTTGCA TGTGCTCTTT CTTTGGGGT TGAAACGATA	16020
GGAGAAGGAA ATGTTAGAAT TGCTTAAATC AATCGATGCT TTTGCTTGGG GACCGCCCCT	16080
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TTTGCGTCTA CCCAAGGCCT TTCAGCTTAT TTTTATCCAG GATAAGGGAC ATGGTGATGT	16200
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TATCTTAGGA ACTCTTACAG TTATTTTCTT TAATATCGGA AAAATCCCTG GCACAATCGC	16740
TTTAGTCTTT ACCTCAGCTT TTAGTCCCCT TGCTGCGGTA GGTGGATTG CTGGTGCTAG	16800
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GGGTTCTGCT CCTATTGCAG CTGCAGCTGC CAAGACAAAT GAACCAGTAG AGCAAGGTTT	16920
GATTTCCATG ACAGGAACCT TTATTGATAC CCTCATCATT TGTACTCTAA CTGGTTTGAC	16980
CATCTTGGTA ACTGG	16995

(2) INFORMATION FOR SEQ ID NO: 83:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 28473 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 83:

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GGTGATAAGC TCAAGGCGGT TATTCTCAAC TATCCAGCCA ATCCGACAGG AATTACCTAC	600
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CCTATGTGCC	AGATCAGATG	CGTTCGACAC	TAGGGATTAT	TTCTATTGGG	CTAGTCATCG	5340

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AATTGCGGGA GCAAGGAGTG CGGATGAAAC TGTCTGCTGT TTCGGGTGTT GTCAAAGGCA	14160
AACGTGTGGT CATGGTGGAT GATCCATTG TACGTGGAAC AACCTCTCGT CGTATCGTTC	14220

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ATCCTGACAG CTGATGGACC GAAAGTCATT GAGTTCAACG CTCGGTTCGG AGATCCAGAA	19500

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TCTGTCCGAT	CATTGGCATA	TTTATCAAGT	CCGATGTTGA	AGATTTTCAGT	CTTTTTCGCG	26400
AAATAAGCAG	CATACTTGTC	GATAAGGGCT	TTTGTAAGAG	CGACAGCTTG	TTGTTGTCA	26460
AGATCGACAG	TACGGGCTGA	TTTCTTCCCA	AAATAGCTAA	AGTTAGGGTT	TTGGATTCCC	26520
AATTCCTTCA	TGGCATTCAG	AATCGCATCC	ATGTGTCCAG	GACTATTTAC	TGTCGGAATG	26580

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AGACCGATAC CTTTATCTTT GGCATAGTTA ATCAGATCTG TCATTTGACT TTCTGTTAAG	26640
TGATTGCCGT TTGGATCGTT GTAATAATCA TTTGTACCTT TTTCAATGGC GCGTTTGACA	26700
TCGTCACTGG CATAGGTCTT GCCGTTAGCT GTGATGCTCA TATCGTCCAA CATGAAACGG	26760
AGTCCATCAT TTCCGACTAA TAGGTGTAAA TCAGTGTAGC CATAATGTTT CGCTTTATCG	26820
ATGATTTCTT TGAGCTGTTT TGGTGAGAAA TATTTACGTC CAGCATCAAT AGAAACAATT	26880
TTCTTTTTCG CTAGTTTTTC ATTTACAGTT GCAGCACGTT CCTTTCCTGC CTCTGTTGCC	26940
GGTTTGTGAG CCTCTGCTTT CGCTTCATCT TTTTAGCTG GTTTATCCTT GTCAGTCTTG	27000
TCTGTATTTG ACTCTTTAGA ATCAACCTCT TTCGCTTCTT CCTTTTTAGG GCTAGCTTCT	27060
TCTGCCTTTT TATTAGCAGT TTCTTTTCA GCAGAAGTTG GAGTTACCAC TTCTGCTTTA	27120
TCACTAGGAG TTGAACTAAC TTCCTCTGT GGTTTTCTT CTGTTTTTGG AAGACTAGCT	27180
ACCTTATCAG TAGCTGGAGT TTCTGTTTCT ACAGTTTTTG GAGCTTCTGG TTGAAGCACT	27240
GCTTTAGGTG TTTCTCAGT CCGATTTTCG GATGATTGAG GGAATCAGA AACCGTATGG	27300
ATGGTCGGTT GGTTTTCTGT AGTAGTAGGA GTAACCTCAT CGGCTGCAAC AGTCTGTGCT	27360
TGGAAGGCAA ATCCAATTAG AACAGAAGCT GCTCCTACAG CGTATTTACG AATAGAAAAA	27420
CGCTGTTGTT TTTCATGTTT CATTGCAAAA CCTCCTGATT GCATTGTTAT ATTGATAGCG	27480
ATTATATAAA TCAACGCCTT TATTTTATTT CTTATATTAA TTTCTTATAT TAACGAGAGT	27540
CAAGAGGAGA TGACAAAAAA CTATAATAAG TATAAAAAAA TATAAAATTT AAACCTAAGA	27600
TTTCAGATTG GTCGAAAAAA ATACGTATAT ATATCTAGTA TAATTTTTGG TTCTATTTCT	27660
ATAAAATATT CCACAAATTA TAGAATTTTC CAAAATAGG TAAGCGCTAC CTTTTTGGTG	27720
TAGTATAATA AGCATAGAAA AAGCCCAAGC GATTAGCTCA GGTTTTCTTC TTAGTGATCA	27780
CGGTCACATG AGATAAATTT AATCTTGTAG TAATCAGATC GTTTGTAAGT TTCCTGTAT	27840
TCTAAACTTT GGCCAGTTGA TTCGAGTTTG GTGATTTTAG TTTGTAGGAC AGTAGGGAAT	27900
TGTTTCATCGA CTCCGAGGAC TGAAGCTGCA TGTCTGGAG TTGGAAAGAC TATTTGTTG	27960
ATTTCTTCAA AGTGTTTCATC ATTCATGTGA ATGTGGTAGT CTAACCTGAA ACGATTATAG	28020
ATAGAACTAT AGTATTCAAG GTTTGGATAA TTTGCGTTGA TATATTGTTT TGGGATGTAG	28080
GATGTATGGT AGATATAAAC GACACCGTTT GATTCGCGGA TACGTTCAAT CTTGTAGTAG	28140
AATTGATCGC CGCGTAGACC CAATTTTTCC AAGTAAACAA GCTTGTTCCT GCGTTCAATT	28200
GAAAGAACAG TTACCTTATC ATCTTTAGCA TTGAAGAGTT CAATATCTGA AAACCTCTACA	28260
AGCTTGTGTT TGCCTGCACG TGAAACGAAG GTTCCTTTTC CTTGTTGGCG GACAAATATAG	28320
CCATCTTTGG CAAGGTCGTT TAAGGCGCGA ACAACTGTGA TAGAGCTGAC ATCGTACATT	28380

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GAAATGAGTT CTGCTTCAGT GTAAAATTTA TCTCCACTGC TAAACTGCCC AGAGATGATT 28440
TTATTTTTTA ATTCGTCTTT TATGTATTGA TGG 28473

(2) INFORMATION FOR SEQ ID NO: 84:

- (i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 6749 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 84:

CCTGATGGGT GGTATGCGAG GATACAGTTC TGAAAATCCC CGTTACTTAA TTAATGGACG 60
CGAAGTCACA CCTGAGGAAT TTGCTCACTA TCGTGCGACT GGTCAATTAC CAGGAAATGC 120
AGAAACTGAT GTGCAAATGC CACAACAGGC ATCAGGTATG AAACAAGGCG GTGTCCTTGC 180
AAAAC TAGGT CGAACTTAA CAGCAGAAGC GCGTGAGGGC AAGTTGGATC CTGTTATCGG 240
ACGAAACAAG GAAATTCAAG AACATCTGA AATCCTCTCA CGCCGCACCA AGAACAATCC 300
TGTTTTGGTC GGAGATGCAG GTGTTGGTAA GACAGCAGTT GTCGAAGGTC TAGCGCAAGC 360
CATTGTGAAC GGAGATGTTT CTGCTGCTAT CAAGAACAAG GAAATTATTT CTATTGATAT 420
CTCAGGTCTT GAGGCTGGTA CTCAATACCG TGGTAGCTTT GAAGAAAATG TCCAAAACCT 480
AGTCAATGAA GTGAAAGAAG CAGGGAATAT TATCCTCTTC TTTGATGAAA TTCACCAAAT 540
TCTTGGTGCT GGTAGCACTG GTGGAGACAG TGGTTCTAAA GGAAGTCCGG ATATTCTCAA 600
GCCAGCTCTC TCTCGTGGAG AATTGACAGT GATTGGGGCA ACAACTCAAG ACGAATACCG 660
TAACACCATC TTGAAGAATG CTGCTCTTGC TCGTCGTTTC AACGAAGTGA AGGTCAATGC 720
TCCTTCGGCA GAGAATACTT TTAATAATTCT TCAAGGAATT CGTGACCTCT ATCAACAACA 780
CCACAATGTC ATCTTGCCAG ACGAAGTCTT GAAAGCAGCG GTGGATTATT CTGTTCAATA 840
CATTCCTCAA CGTAGCTTGC CAGATAAGGC TATTGACCTT GTCGATGTAA CGGCTGCTCA 900
CTTGGCGGCT CAACATCCAG TAACAGATGT GCATGCTGTT GAACGAGAAA TCGAAACGGA 960
AAAAGACAAG CAAGAAAAAG CAGTTGAAGC AGAAGATTTT GAAGCAGCTC TAAACTATAA 1020
AACACGCATT GCAGAATTGG AAAGGAAAAT CGAAAACCAC ACAGAAGATA TGAAAGTGAC 1080
TGCAAGTGTC AACGATGTGG CTGAATCTGT GGAACGAATG ACAGGTATCC CAGTATCGCA 1140
AATGGAAGCT TCAGATATCG AACGTTTGAA AGATATGGCT CATCGCTTGC AAGACAAGGT 1200
GATTGGTCAA GATAAGGCCG TAGAAGTTGT AGCTCGTGCT ATCCGTCGTA ACCGTGCTGG 1260

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TTTTGATGAA GGAAATCGCC CAATCGGCAA CTTCTCTTT GTAGGGTCTA CTGGGGTTGG	1320
TAAGACGGAG CTTGCTAAGC AATTGGCACT CGATATGTTT GGAACCCAGG ATGCGATTAT	1380
CCGTTTAGAT ATGTCTGAAT ACAGTGACCG CACAGCTGTT TCTAAGCTAA TTGGTACAAC	1440
AGCAGGCTAT GTGGGTTATG ATGACAATAG CAATACCTTA ACAGAACGTG TTCGTGCAA	1500
TCCATACTCT ATCATTCTCT TGGATGAAAT TGAAAAGGCT GACCCTCAAG TTATTACCCT	1560
TCTCCTCCAA GTTCTAGATG ATGGTCGTTT GACAGATGGT CAAGGAAATA CAGTAAACTT	1620
CAAGAACACT GTCATTATTG CGACCTCAA TGCTGGATTT GGCTATGAAG CCAACTTGAC	1680
AGAAGATGCG GATAAACCAG AATTGATGGA CCGTTTGAAA CCTTCTTCC GTCCAGAATT	1740
CCTCAACCGC TTTAATGCAG TCATCGAGTT CTCACACTTG ACTAAGGAAG ACCTTTCTAA	1800
GATTGTAGAT TTGATGTTGG CTGAAGTTAA CCAAACCTTG GCTAAGAAAG ACATTGACTT	1860
GGTAGTCAGT CAAGCGGCTA AAGATTATAT CACAGAAGAA GGTTACGACG AAGTCATGGG	1920
GGTTCGTCCT CTCCGTCGCG TGGTTGAACA AGAAATTCGT GATAAGGTGA CAGACTTCCA	1980
CTTGATCAT TTAGATGCTA AACATCTGGA AGCAGATATG GAAGATGGCG TTTTGGTTAT	2040
TCGTGAGAAA GTCTAAGACA GAATTTTGAG GATAAAAAAG AAGGAGCCAG CTGAAAAAA	2100
CTGGTTCCTT TTTAGGTACG ACAGGCATGT CGTATAGTAG AAGTGTATTA TTCTAGTTTC	2160
AATATACTAT AGTAGCTCAG AAGTCGGTAC TTAACGTGC TATATCAAAA CCAGTCCTGG	2220
AAAAACGTGG ACTGGTTTCG TGTTTGGATT ATTACCTTGA ACGACATGCG TTAAGTTA	2280
GTTGAACCGC CGTATGCCGA ATGGTACGTA CGGTGGTGTG AGAGGGGCTA GAGATTATCC	2340
CCTACTCGAT TTAAATCAC ATGACGTTCA AAGGCATCAT CTGAAATCCC TTGTTCCAAG	2400
ATGAGTTTGG CCCATTCTTT AGCAGAGAAG AGGCTGTGGT CCTTGTAGTT TCCGCAAGAT	2460
TCGATGGTTG TCCCTGGGAC ATCTTCCCAA GTAGTAGTTT CAGCGATTTC CTTGAGCGAA	2520
TCCTTGATAA CAGCTGCGAT TTTAGCACTG GTGTGACGTC CCCACATAAT CATGTGGAAG	2580
CCTGTGCGGC AACCAAATGG TGAACAGTCA ATCATGCCGT CAATGCGGGT ACGGATGAGT	2640
TTGGCTAAGA GGTGCTCGAT AGTGTGAAGG CCGGCAGTAG GGATAGAGTC TTCGTTTGGT	2700
TGCACCAAGC GAATATCATA ATTGGAGATG ATGTCTCCTT TTGGTCCTGT TTCTTCCCA	2760
ATCAAGCGAA CATAGGGTGC TTTGACAATG GTGTGGTCAA GTTCAAACT TTCGACAATA	2820
ACTTCTTTTG ACATGGTAAA TCCTTTCAGT TTTCTTCTCT CATTATATCA TAAAGGTTGC	2880
TCCTGAGACA GAGAGAAAAC CTCTCCGAGG CTGGAGAGGT TGAAATCTTT ACTTACGATA	2940
TAAGCGGTCG TATTGGTAGT ATGGGTCAA GGTACGTTG ATACCCAGTT TACGAAGGAC	3000
ATTCTTGTCT TCATCAGTCA AGATGATGGT TGAGTGGGCT TCGCTTCCTT TGAGGTTGCC	3060

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GAGTTCTTCC ATAGCGCGGG CAGCATCAGG ATTTTCTGTA GCTGTGATAG CAAGTGCAAT	3120
CAGGATTTCA TTTGAATGAA GCGGTGGATT GCGGCTACCG AGATGATCGA TTTTAAGACC	3180
TTGGATTGGC TTAACAACCT CAGGCTCGAT TAGTTTTACT TCTTTAGCGA TGTGAGCTGA	3240
TTTTTTGATG GCGTTGATCA AGGCAGCGGC TGTAGGACCA AAGAGTTCTG AGTTCTTACC	3300
AGTGATGATT TCCCCATTTG GCAATTCAAA GGCTAGGGCT GGTCCACCAG TTTCTTCTGC	3360
TTTTTGCGC GCAACGACAG CAACCTTACG GTCTGCAGGT GTGATACCGA GGTGTTTCAT	3420
GAGCAACTCA ATTTTCTTGA CGGCAGCTTC GCCAACTTTT TCAGCTTTGA AGTCAAGAAC	3480
TGTTTGATAG TAACGGCGGA TGATTTCTTG TTTAGAAGCT TCGACAGCGG CCTCGTCATC	3540
TGTAATAGCG AAACCAACCA TGTGACACC CATATCTGTC GGTGAAGCGT ATGGTGATTT	3600
TCCGAGAATA CGTTCCAACA TGCCTTTGAG CACTGGGAAG ATTTGATAT CACGGTTGTA	3660
GTTGACAGTG GTTTCTCCAT AGGTTTGAAG ATGGAAGGGG TCAATCATGT TGACATCATC	3720
AAGGTCAGCT GTGGCAGCTT CATAAGCCAA GTTAACTGGA TGATGAAGGG GAAGATTCCA	3780
AACAGGGAAG GTTTCAAATT TAGCGTAGCC AGATTTGATG CCATTGATTT GGTCGTGGTA	3840
CATATTGGAC ATACACGTTG CCAATTTTCC AGAACCAGGT CCAGGAGCGG TTACGACAAT	3900
CAAGTTGCGA CTGGTTTTGA TGTAGTCGTT TTTGCCCATG CCTTCTGGGG AAATGATGTG	3960
ATCCATATCC GTCGGATATC CTTTGATTGG ATAATGAAGA TAAGAATCAA TTCCGTTTTT	4020
CTCAAGTTGA TTGCGGAAGG CATCTGCAGC GGGTTGGCCA GCGTATTGTG TAATGACAAC	4080
GGAACCAACA AAAATCCCTA ATTCATTGAA TTTATCAATC AAACGAAGAA CTTCTTGGTC	4140
ATAAGAAATG CCTAAGTCGC CACGTGCTTT GGAATGTTCA ATGTTGCTAG CATTAATGGC	4200
AATCACAACC TCAACCTGCT CTTTCAATTC TTGCAAGAGC TTGATTTTGT TGTGAGGTTT	4260
ATAACCAGGA AGGACACGAG CAGCGTGGA ATCTTCTAAC ATTTTACCGC CAACTCTAA	4320
GTAGAGCTTG CCGTCAAATT GGTTAATGCG CTCCAAAATA TGGTCGCGTT GTAAATCAA	4380
ATATTGTTCA GAACTAAAAG CTTGTTTTTT CATTTTTTTT CCTCTGGACT CTATTATAAT	4440
AAAAAATTGG AAGTTAGGAA ACTACGGAGC TAAAAAAGAA ATTAAAAAGA TTAAGCAAAC	4500
GCTTGACAAA AATTTTAAAA AGTGCTATCA TAGACTATAG ATTATGAAAA TAATGAGGTA	4560
AACAGATGCA AGAAAAATGG TGGCACAATG CCGTAGTCTA TCAAGTCTAT CCAAAGAGTT	4620
TTATGGATAG TAATGGAGAT GGAGTTGGTG ATTTGCCAGG TATTACCAGT AAGTTGGACT	4680
ATCTAGCTAA GCTAGGAATC ACAGCAATTT GGCTTTCTCC CGTTTATGAC AGCCCTATGG	4740
ATGATAATGG CTATGATATT GCTGATTATC AAGCGATTGC GGCTATTTTT GGAACCATGG	4800

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AGGACATGGA TCAGCTGATT GCAGAAGCTA AGAAGCGTGA CATTTCGTATC ATCATGGACT	4860
TGGTGGTCAA TCATACCTCA GATGAACATG CTTGGTTTGT CGAAGCCTGT GAAAATACTG	4920
ACAGCCCTGA GCGAGACTAC TATATCTGGC GCGATGAACC CAATGACCTA GATTCTATCT	4980
TTAGTGGGTC TGCTTGGGAA TACGATGAAA AGTCAGGTCA ATACTATCTC CACTTTTCA	5040
GCAAGAAACA GCCGGATCTC AACTGGGAAA ATGAAAAACT TCGCCAGAAA ATTTATGAGA	5100
TGATGAACTT CTGGATTGAT AAAGGTATTG GTGGTTTCCG TATGGATGTT ATTGACATGA	5160
TTGGCAAAAT TCCTGACGAG AAGGTAGTCA ATAATGGTCC TATGCTCCAT CCCTATCTCA	5220
AGGAAATGAA TCAGGCGACC TTTGGAGATA AGGATCTCTT GACAGTAGGG GAGACTTGGG	5280
GAGCAACTCC AGAGATTGCC AAGTTCTACT CTGATCCAAA GGGGCAAGAA TTGTCTATGG	5340
TCTTCCAGTT TGAACATATC GGTCTTCAGT ATCAGGAAGG TCAGCCTAAA TGGCACTATC	5400
AAAAAGAGCT GAATATCGCT AAGTTAAAAG AAATCTTCAA CAAATGGCAG ACAGAGTTAG	5460
GAGTTGAGGA CGGCTGGAAT TCCCTCTTCT GGAACAACCA TGACCTCCCT CGTATTGTCT	5520
CAATCTGGGG AAATGACCAA GAATACCGCG AAAAATCTGC CAAAGCCTTT GCAATCTTAC	5580
TTCATCTCAT GAGAGGAACT CCTTATATCT ACCAAGGTGA GGAGATTGGG ATGACCAACT	5640
ATCCGTTTGA AACACTGGAT CAAGTAGAAG ATATTGAATC TCTCAACTAT GCGCGTGAGG	5700
CTCTTGAAAA AGGTGTTCCG ATTGAAGAAA TCATGGACAG TATCCGTGTT ATTGGACGTG	5760
ACAATGCCCC TACCCCTATG CAATGGGACG AGAGCAAAAA CGCTGGTTTC TCAACAGGTC	5820
AACCTTGGTT GCGGTTAAT CCAAATTACG AGATGATCAA TGTCCAAGAA GCGCTGGCAA	5880
ATCCAGATTC TATTTTCTAT ACCTATCAGA AACTGGTCCA AATTCGCAAG GAGAATAGCT	5940
GGCTAGTTTC AGCTGACTTT GAATTGCTTG ATACGGCTGA TAAGGTCTTT GCTTATATAC	6000
GTAAGGATGG CGACCGTCGC TTCCTAGTTG TGGCTAACTT GTCCAATGAA GAGCAAGACT	6060
TGACAGTAGA AGGAAAAGTC AAATCTGTCT TGATTGAAAA CACTGCGGCT AAAGAAGTAC	6120
TTGAAAAACA GGTCTTGGCT CCATGGGATG CTTTCTGTGT GGAATTACTA TAAATATTTT	6180
TTGCAGAAAA ATTTAAAATT GAAATCGTAT AAAACAAGG GAGGACTGTA TAAAAGACAG	6240
AAATCCTTTG TTTTTTATAA CCAAAGTTTA TAACTTTCA TTCTTGAAAT TCAATTAAC	6300
TTACAAATTC CCACTATTAA GGAGAAAGAA GATGAACATA AAGAAGCGTG TCCTTAGTGC	6360
AGGCCTGACT TTTGCATCTG CTTTGCTTTT ACCCAAATCA TTCATACCTC TCTCAACTAG	6420
ATGTAACCTA CAAAACCCCT GACCTCATGA GCCACTTTCT TCCTCCTCAT GAGGTCAGTT	6480
TTACTTTCTG CTGTTCCAGT ATCGTTTTTC CTCGCTAGAT TTCCTCAAAA GGGCAGACTC	6540
CTCCCTTGGT GCGTCACACG ATTTTTTCAT CTCGACTGTT CTTTAATGCA TCATTAACGA	6600

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CGCTTTTCTT CTAGGTGGTT CATAAGGAAC AGGAAGATTC AGGTTGACTT TTCTAATCCT 6660
AGAATAAAGT GCTGAAAACA ATTCGGAATA GGCATAGAGA CTAGACAATT TGAGGAGCTG 6720
CTTGCGTCCT GTTCGAACAC ATTTTCCGG 6749

(2) INFORMATION FOR SEQ ID NO: 85:

- (i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 1842 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 85:

TCTACCCATG GACTTTGAGG CATTCAATTGT TCCATCTTCT AGTGGCGAAT CTTTGTATAC 60
AAACGATTCA ATTCACCTTG ATAGTGAAC TCTCCCGCAA ACATTTTCT GGTAACTCA 120
ATCCAGCTGA TATTTCTTTC AGCCAAAATA ATGGACAAGT TCTCCCAAAA TCGTTCAGCC 180
ATATTGCTTC TCCTTTAGTT AGATAAATAA TGTGTTTGGC CCATGTAAAT CAATTGTTTC 240
GTATCTCTTG GCAATAGAGC TCTAGCCTCT TCCAAATTCA GACTTGGATA AACTCGCTTA 300
TTTGAAACCG CAAGAGGAAG TCTGATGGTT AGTTCAGGAT TTTTAAAT TATCTCAACG 360
AAATCCGTTA ATCTTAGATT GTCACGGTTC TTAATCGTA ATAAATTGGG AGATAAAAC 420
TCAAAACAAT CTGAAGAATA GCTCATCATC TCAATTAATT TGTCTTTGT CATTTAGAA 480
ACTGAATGAC AAGATACCTC TATGCCATAG TTTTGAAGA AATCTAAAAG AAGTTGATTT 540
CTTTGTCTAT TTTTACTTAG ATAGAGATCA ATCATGGGAG ACCTCCCAA GATTCGGTTC 600
CATTTGATAT TCTGACACGA TTAAGGAATC TAATAAATTA AGGAATCTAA TAAATTTGCG 660
AAGTTAATCG GTTTCTTGTC TTCATCATAA GCTTTTACAG TTAATTGGGT TGTAAATTT 720
CCCTCTTTTC CCTCGGCTCG ATAGCCTTGT CCATATAAAA CAAAAACGAG ATTTTGATGA 780
TCATCTACAA AGGCATCAAC CCCATTCTTT ATGTCTTGAC TTTCAAGGAA TTCCATAACG 840
TTTTGAAGAT AGGATTCGTA AAATAGTGGG TAGTTATGTT TTTTATGGTA ATCATCTAAA 900
AATGTCACCT CAAACTCACA TGGAGAGTAA TTTTGACTTT GAACAGCCTA AAAGTGCCAT 960
CAAATTTGAA TTGGAATAAA TCAAATAAAT AGCCCCATCC TCATCAATCC AACCTTTGCT 1020
CAAAGACAAC TCCAACCGAT CTTTAAAAAC TGAGTAAACC ACCTTAACCT CCAGTTTCAT 1080
ATTCTTATAC CGTTCACTCT CAAATAAAAG TTTGGGGAGC TTATAATAAC GCTCTGATGT 1140
CTGATATTGA TTAGCGGTAA TACGCTTCAT TATTGTCCCT CCAAGACTAA AATCCAACA 1200

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TTTCCAAATT CATCAAATCG GATTAAACCT ACTTGTTCCA TTTCATCAAC TAACTGAGTT	1260
GCTTTTACCC AAATCATTCA TACCTCTCTC AACTAGATGT AACTTACAAA ACCCCTGACC	1320
TCATGAGCCA CTTTCTTCCT CCTCATGAGG TCAGTTTAC TTTCTGCTGT TCCAGTATCG	1380
TTTTTCCTCG CTAGATTTCC TCAAAAGGGC AGACTCCTCC CTTGGTGCGT CACACGATTT	1440
TTTCATCTCG ACTGTTCTTT AATGCATCAT TAACGACGCT TTTCTTCTAG GTGGTTCATA	1500
AGGAACAGGA AGATTCAGGT TGACTTTTCT AATCCTAGAA TAAAGTGCTG AAAACAATTC	1560
GGAATAGGCA TAGAGACTAG ACAATTTGAG GAGCTGCTTG CGTCCTGTTT GAACACATTT	1620
TCCCACCACG TGAAGAAAAA GATGGCGGAA GCGTTTGATT GTTAAAGTTT GGAAGTCACC	1680
TCCAGCTAGA TGTGTGAGAA AAAGATAGAG ATTGTAGGCG ATACAGCTCA TCATCATACG	1740
AACTTCGTTT TTGATTAAAG TTGAACTATC CGTTTTATCG CCAAAAAATC CCTCCTTCAT	1800
CTCCTTGATG AAATTCTCGG CTTGACCACG TCCACGATAA AG	1842

(2) INFORMATION FOR SEQ ID NO: 86:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 19390 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 86:

TCATCTTTAT CTCCTCGAAA TTTTCTAATA TAGCCATTAT AACAGAATTT TGTGAAAATT	60
CCTATTATAG TAAATCACTA TTTCAGTATA AAAAGAAAAA ACGAATCAGA CGATTGCTC	120
TTCTTAAAT CTGAAAATAG CTTTCCAGAA AGGATTAGCC GATTTTTTGC AGATTGAGCA	180
CTGCATCGTG ACTCATCAAG ACTTGACCAT ACTCTTGTA GACTGAGCGA CTGATATCAC	240
TATCGTCTGC AAATCGCGC ATACGGGCCA ACAGCCAAGC TGGATATGGG CTTGGATGAT	300
TTCAATATC CACTAAAATG GTCAAATAAT AGCGCTCGTT CATTTGTAG AGTTCAGAAG	360
TTCCATTTC AAAAGTCACT GTCTTGCAA AAGCTACCAA GTCAGCCAAC TTAGCAAAAG	420
AAAGGATGTA GTAGATGTAA GGTCTTTCT TACTCTCAGC TTCTTGTTCA GCCTGCTCTT	480
GCTCTTCTTC CTTGACTTCA ACTTGCTCAA GAGATTGAAT GGCTTCGATA TCATCCTTGG	540
TTTTGTCTGC GATGCTTTT TCCAGGGTTT TGATAAATTC ATCTGGAGAC ATTTGAGCCA	600
ATTCTTCCAT ATCTGGCAAA TCCGATAAGT CTTCAAAATC TAGATTTTGG TCAATCTTTG	660
ACTTGGTCAC AAAGACATCT ACCTTATCAG GTTTTGGAGT CACACGGAAG CTCAACATGC	720
CTGTATCCAG AAAGCTATCA GGCATCTCTA GCTCATCCAA GATAGCATAA AAGAACTCTT	780

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CTGTTTTTTC	TTGAGGAACG	AGAAAGTCAG	CAATCTCCAT	TCCACGATCC	ATCAAATCCT	840
CTAAAGATAT	CGTGATTTTT	AAAGTTGTAT	CACTAATTTG	TTTCATTTTC	ATTGCTAGTA	900
ACCTCATACT	TTCAGTTCTA	TCTATTATAC	TAGATTTTTA	CGATTTTATC	AAAAGAAGGC	960
TCCTCTATAC	GGATAGATTT	TCCCTAGGGT	CTTTCTATAG	GAGACTCCAA	AAGAAAATTT	1020
CTGCAGACAG	ATAGAAAAAG	CCTTCAAAAT	CGGCTAAGAG	CCGACTTTGA	AGACCTTATA	1080
CATCAGAATA	CTTATAATTT	AAAGGTTGCT	ACACCGAGGA	TAGAACGATT	TAAGTTTCTG	1140
AGAATTTGAA	GACTTTGCTC	AAATTTCTTA	TAACGAGTCA	CTCCGTACTC	TTCAACAAGA	1200
AGGACTGTAT	CTCTTTCCAA	AAGAGATGAT	ACATCCTGTA	AATCTACAAA	ATGCATTCCT	1260
TTTAAAGCTT	CTTGACTCTG	TTTCAATTTA	TCTAAGATAG	CTTTATTTGA	GCTAACGATG	1320
GTCAATTCCT	GTCCAGTATT	TTTGTATGAC	AAAACATCTG	CTAGGTTAGC	AATTGTTGTA	1380
ATCTCTGTTA	CAAAATCAAT	TTGATACTGA	GAAAAATCAC	CTACTCTATT	GATTGTTGGA	1440
TTAAAGAGAT	AAACTAACAC	ATTTCCCATC	ACAACCAAAA	TCACACAAAC	CACTCCAATA	1500
ACAACATAAC	GAAGAATCAG	ATTTTTCACA	TTTAAGCCAA	GCGCTGTTTC	ACCATTTGCG	1560
TTCAATTCTT	TAGAGTTGAT	GGTTTCCAGT	TTTTCAATTT	TCACATTTGC	ATAGGCATGT	1620
TTAAATTTCT	CAATCAACCC	ATCAATTTTT	TTCTCTAACA	AGTTATTGGC	ATCTTTACTT	1680
GATGTCAAAA	TTTTACACCC	AACCCCTGCA	TCGTCAATCA	TATAGTAGAC	GGTCAATTTT	1740
TTCCACCAAT	AGTCATTTCG	TGAATTTTTC	AAGGTTGTTT	CTGTCGTGTC	TAATTCACTG	1800
GCAATTTTTT	TCAACTCACT	GGGTTCTACA	TCATTGAAAA	GATAAGCTCC	ATTCAAATTA	1860
CCATCAATCA	ATTTCCCATA	AAAATCACTA	TAACCACCAA	TTTGATGATT	CAAAATCGTT	1920
TTGTCCGACT	CTTTTGGAGG	AGTGATTTTA	TAGATAAGAT	AAGTTGAATA	ACTTGTGTA	1980
TCTTTGACAG	TGTTTTTATT	CCTAACTGCT	TTAATTGTAA	ATGGTACAGC	AATGAGAGCA	2040
AATAAGCGA	TGAGAGCTAA	AATATTTGCT	TTTCGCTTTT	TATAAGATT	TGCAAACAAA	2100
TCAGCTACTG	AATAATGTTT	AAACATGATT	TTTTTCTCCT	TTGTTTAGTA	GATACTAGTT	2160
TTCTTTTGTA	AGCATTTTTG	CTACAAATAT	AATCACAAGA	ACAATTCCCC	AGAATTGCAT	2220
TGTAAATAAA	TTGAAGAAAC	TTTCTGAAAA	GCTGCTTCTT	GGCATAAAGA	ATAGATTATT	2280
CAAGATGAGT	AGGGATAAAG	CAAATAGGAT	TGTCCTTGAG	CGATAGGCTA	CTTGCAGCAT	2340
GGCTATAAAT	AATACGCCGA	GTAAGAAACT	AAGCAGAAAG	ACTCCAATCA	TACCATAGTC	2400
GGTATACAAC	TCCATGATAT	AACTACTTCC	GATACCATGC	CCTTTCAAGT	ATTCCTTGTT	2460
CAAGACAAGA	TAGGATAGAT	TGTGGGCATA	ACTATTACTA	TCAATAGCTA	GTTCCACACT	2520

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ATTGGTTGTA TGTTCAAAGG CTTTTCTCC	GAAAATGGCT CCCAACTCC CCCTTGCAAA	2580
ATAATCAAGA ACAGGACCAA AAGTAAAATT	ACGGAAATCT CGGTAAGGGA GGCTACTGTT	2640
AAATAGAAAA CCTCGAGCCA GAACACCAAA	ACTAGTCCCT TGTTTATAGA TAAAGTCAAG	2700
TAAGATATCC CAGAAACCTG TATGGGAAAC	TTGGACATTA TCCCGTACAT AATTGAGTAC	2760
TCCCATCGCT AACATGAGAA TAGGAGAACC	TACAAAAATC GCTAACTTTT CTTTAAACCC	2820
AATCCATTTT CCTTTTTCAG TTTGCTCCCG	CATAAAGTAA TAAACAAAAG CAAATMAAAT	2880
ACTTAAAATA AAGGGATTTC GTGTCCCAAT	TGCCAAATGA ATAGTATTAG CTGCAATAAA	2940
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TGCATAGACC GTAAAGGTAG ACAAATGTA	GGTAAAATAA GGCAGTTTAC TTTCAAAATT	3060
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GAAATAGAAA GGATAAGTTA GAAGAAAAAC	TCCTAGTGAT ACAAAGCGTA ACCGCTTGAT	3180
ATAAACCTCT TTTAGAGAAT TTCCTATATT	TGCTACTTTT ATTTTCTTCC TAGCTATGAA	3240
GTAACGAGCC AGAATGCCTC CTGTGGTCAA	GCCCAGAATC GAAATCATGA CAACTATAAA	3300
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GGTCGGTCTT GATACCAGAA ATACAAAAAT	GGTTAAATAG AAAATAAAAT GGATTAAAGTA	3420
ATACTTGATA TCATTCCAAC AAGCAATTAA	GCTACTAACC AACAAGAACA ATAAAGTAGA	3480
AAGTAAGCTA ACATTATTAT TATTAAACAG	ATACACAATT CCACTTACTA GCGTCAAGGC	3540
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AATATTTATG AATAGGGCCA AAGCACTAAT	TCTTCTCCCC TTACGGAAAA TTGGATTCCCT	3720
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CACAATCACA CTAATTAATG CAGTTTCCAT GCTACTCCTC TAATAGTTTT TCTACTTGTT	4620
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TCACAATCAG CCAAATCATA CTTAGTCATT TCTTCTCAG CTTTTTTCCA GATGCGATAA	6000
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CACGCAAAAA	CATGAATACC	ATGGCCAAAG	CCACACAGAC	CAAAAGTGAA	AAAATCACCA	7800
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TGCTCGTCTG TGCTGAGCCC ATTTGCCTGA AAATGCGCTT GAGACAATTC TCGTGAACGT	16440
TTGGCTAGAT CAACAGAAGT TGTATGGCTA GCTCCTCCCA TGGCCGACG TACTGAAAAA	16500
GCCGCTGTGT AGGAAAACAT ATTGAGTAAG GATTTACCCA TAGCCAAGCC GTCAACTAAA	16560
CTACCGCGAA CCTCATGCTG GTCTAGGAAA ATTCCTGTCA TCAAGCCATC ATTCATAAAG	16620
ACTTGATACA GGACACCATT TTCTAAACA TTGAAAAAGT CAGGTGCTTC TTGACCATAA	16680

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ACATGGGCAG	ATTCATAGTC	CAAACCCTTA	AAGCGGATTT	TCTCATAAGC	TCCTAAAACC	16740
TCAGGGAAAA	CCTGTCTAAA	GGCTTCTGAT	ATAGTCTGAC	GAATCTGATA	AACATAAGAG	16800
TTATACCAAG	AAAAGACGGC	GTAGTCGCCA	TAAAGGTCCA	CTGTCAGACC	CCCAAAGCCA	16860
TCTCCCTCTT	GATTAAAGAG	ACGAAAGGCA	GTTGTCAAAT	CATCTTGATA	GTAGGCGTTT	16920
CTCTTTTCTT	TGGCTTTTCT	AAACAACGTT	TCAAAGAAAG	CTTGATTGAA	GGCCACCTTG	16980
TCTTTGCTGA	TAAACCAGCC	CAAGCCCTTG	TTTTGCTGAG	AAAGGTAGGC	AGTCCCAAGA	17040
AAGTTTCCTT	CCTGACCCTG	CACCTCTACT	TCCTGATCCT	TAAGATTGAC	ATTCTCAAGA	17100
TCACTGGCTT	CTAGTAAAAC	TAGCCCCTTA	GCAAGCTTCT	TTTCAACCCT	TTTGCTGACT	17160
CTTATTCTAT	TCATAACTAC	CATTATATCA	AACTTTTAGA	CAATTCTCAA	AAAAGAAACT	17220
ACCCTTGCTT	TTTTACTCTT	CTTTTAAAAA	ATGGTATACT	AGACTTCCTG	CAAAACTAGG	17280
AAGTAAATGT	GTAAGAATCA	CAGTAAAAAA	TGCTCTTCCG	TCTTGGAGGA	GCATTTCTTT	17340
TTATCAACGA	AAATCAAATA	GCAAACATG	AACTAGCCT	CAGGTAACT	GTGAGATTAT	17400
AGGTAGAGAG	GTTGTATCAG	CAATATGTGT	CTGTCAAATT	TAGTGACAAA	GGTAGTAGAA	17460
GAAAGATAAA	GAAATAAATC	AGCTTCAGTA	GGTATCTGGA	AAATTTGATT	TTATAGAGAA	17520
GCCTTTTGTT	ACAAACTCAA	TATACTATCA	ATAAATAATA	TTATAGAAGC	AACAATAATT	17580
ATAATTTTAC	CTATCTGCAT	CATTCTATTT	CGAACTCTAA	ATATATGTTT	TATCAAAAAT	17640
ACTTGGAACA	CACACATTAT	AGGAATTAAC	GTTTTTGAAA	TTGAAAAATA	TCCAAATAAA	17700
TAAACTATAA	ACAACAAAAA	TAGAACTATG	TTATATTTCT	TATTCAAAAC	ATTCCTCCCT	17760
ATATATTTTT	GATTACCAAT	CTTAATCATT	TACAACTACA	TTCTAACAAA	CTATAAAAGC	17820
GTTTGTGCGA	TTGAATTTAT	CAAGCAAGCG	ACCAACCAGT	TCATCTTTTT	TCTATTTCTG	17880
CCAATATGCG	TGACAGGTAA	TAATGATAGC	CAAAAATAGC	AAGAGCAAGC	AAGACGATAA	17940
GAGCTCCTAC	TCCCAAGCTG	ATGGCAAGGA	TAGGGGAGAG	AGACTGAACC	AAGAATATGC	18000
TCCCAATTAC	AAGGGCCATC	AGGATTGCAC	TATAAATAAA	CAATAAAACT	ATGGCGACGA	18060
TGCCATTTGA	ACGATTCACC	AGGTCCGTAA	TGCTACTCCA	ATTGGTTGAC	AGATTTTTTA	18120
CGTCCTTAAA	GTAATGGTGG	CAAGAAAGGA	TGACACTGGC	AATGATCCAG	ACTACAAGAA	18180
GGTAAATCAT	CGAAATGATG	GGCAAGCCTA	GATATAGAGA	AAGACCAAGC	AAAGTCAGAA	18240
CTGGTAAAAA	GGACTGGACA	GCATATATAA	TCCAAAATTT	CACTTTCACA	TAACGAGCAA	18300
AGTCAAAGGG	TAAACTCTTA	AGAAAATCAA	CATTTTCCCT	CTCCAAGGAC	AAGGCAATTG	18360
AATGCAGGCT	GGTGATATTG	TTATTGACAA	CTGCTATAAA	GAGAGCTATA	AAAAACAAGG	18420
GTAACCAGTA	TGGAGGATGA	ATGTCTGGAA	CTATCTGAGA	ATCTCGGATT	TTGGAAATCA	18480

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GACCGATCAT CATGAGATAA GGAAGGAAAG CACTTGTAAG AAGCACTGTA ATCAGGCCAG	18540
TCCCCTGTCC CAAGAGGGTG AGGTGGTAGC GTAAAACCAT GCGAAAAAAT CCCTTTTGTAG	18600
TGGTTGAAAT TCTCTCCTTG CTGCGACGTT CTTTTTTGAC CTTCTCCTCA CTATTAAGCA	18660
GGATCACGTC ATAAAAACGA GGAAGGACCT TCTTTTTGGT CAGATAAAGC AGGAAGAGAG	18720
TTAGTCCTAT CCAAGCGAGC AGACCCACTA AGGCTTCTGT CGAAAAAGGC TCCACTGCTA	18780
TTTTGTAAAA GATATGAAGA GGATAAAGGA GAAATGGAAT GTCTCTAACT TTGTCAACAA	18840
TACTTCCAAA AGTCGACTGA AGAAAGAAGA TAAATATTAA AGGTATGAGA ACTCCTATCC	18900
CAATCATCAC ATTCGAAAAA ATAGACTGAT ACTTTCTGAA GACCCTAGTT TGAGCCAAGA	18960
AATGCACTGC CACTACCATC ACTAGAGCCA CAGAGACAAA TAATAAGGTC AAGGACAGTA	19020
GCATCAAAGG CAAACCCAGC CATAGAGAAG GAGCTAGCCT AATGTAGAGG ACCAGAAAAT	19080
AAGCTAGGAT TGGTACAATT CCAGTTAGAG CTGGCAAAAG GACAGACAGT CCTTTAGCAA	19140
TTATAATCTC TGATTCTTTA AAGGCATAGG GCCTATACGA TACCAAATCC TTACTCTCAT	19200
AAAAGACATT GTAAAAGGCC GTTAAAGAAG TTGAAAAGGC AATCACTAGT AAAATAGCAA	19260
TCATCGAGCT AAAATAAATA GGTATTTCTT CAAAAGGAAA ATGAATGGCT ATATTACTAA	19320
AACAGATGAT CATCAAGAGA CTGGAAAAAA TGTAAGAACT TAAGACTCTA GCGGAAACAT	19380
TTACTTTTTTT	19390

(2) INFORMATION FOR SEQ ID NO: 87:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 18436 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 87:

CCGAGCGTCG TTACAGACTT TATCAAGATT GGACGCAAGA AGAAATTCAA CATATAAAGG	60
AAAATATGGC ACAATCTCCA TGGCATACTC ATTACCATGT TGAGCCAAAA ACAGGACTTC	120
TCAACGACCC AAATGGCTTT TCTTACTTTG ATGGCAAGTG GATCCTCTTT TACCAGAATT	180
TTCTTTTGG TGCAGCCAC GGTTTAAAT CTTGGGCACA GCTAGAAAGT GATGATTTGA	240
TTCACTTTAA AGAACTGGA ATCAAAGTTT TACCAGATAC TCCATTAGAT AGCCACGGTG	300
CCTACTCTGG TTCTGCCATG CAATTGGCG ATAACCTATT CCTATTTTAT ACAGGAAATG	360
TTCCGATAA AACTGGATC CGTCACCCAT ACCAGATCGG TGCTTTGATG GACAAGGAGG	420

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GTAAGATTAC	AAAGATTGAC	AAGATCTTGA	TTGACCAGCC	AGCAGACTCT	ACTGACCACT	480
TCCGCGATCC	ACAAATTTT	AACTTTCAGG	GTCAATATTA	TGCCATTGTC	GGCGGACAAG	540
ACTTGGAGAA	AAAAGGTTTC	GTTCGTCTCT	ACAAGGCTGT	CAATAACGAC	TACACAAACT	600
GGCAAGCAGT	TGGCGACCTT	GACTTTGCTA	ACGACCGTAC	TGCCTACATG	ATGGAATGTC	660
CTAATTGGT	CTTTGTAGAG	GAACAACCTG	TCCTTCTCTA	CTGTCCACAA	GGATTGGATA	720
AGAAAGTTCT	AGACTACGAT	AATATCTTTC	CAAATATGTA	TAAGATCGGG	GCTTCCTTTG	780
ACCCTAAAA	TGCCAAAATG	GTAGATGTGT	CTCAACTTCA	AAACATGGAT	TACGGTTTCG	840
AAGCCTATGC	AACTCAAGCC	TTCAACGCTC	CTGATGGGCG	TGCTCTAGCA	GTTAGCTGGC	900
TTGGTTTGCC	AGATGTTTCT	TACCCATCTG	ACCGTTTGA	CCACCAAGGA	ACCTTCTCTT	960
TGGTCAAGGA	ACTCACTATC	AAAGACGACA	AGCTCTACCA	GTATCCAGTC	GCTGCTATTA	1020
AGGACCTTCG	TGCTTCTGAA	GAAGCCTTCT	CAAACCGTTC	CCAAACCAAG	AACACTTACG	1080
AACTTGAACT	CAACTTGGAA	GCTAATAGCC	AGAGCGAGAT	TGTCTTACTT	GCTGATAAAG	1140
AAGGTAAGGG	ACTTTCATC	AACTTTGACC	TTGTAAACGG	TCAAGTAACA	GTGGATCGTA	1200
GCCAGGCTGG	AGAACAGTAT	GCCCAAGAAT	TTGGGACAAC	TCGTTCTTGC	CCTATCGAGA	1260
ATCAGGCTAC	TACTGCTACA	ATCTTCATCG	ATAACTCTGT	CTTTGAAATT	TTCATCAATA	1320
AAGGAGAAAA	AGTATTTTCT	GGTCGTGTCT	TCCCACATGC	GGACCAAAAT	GGTATCCTGA	1380
TTAAATCTGG	AAACCCAAC	GGAACCTACT	ATGAATTAGA	TTATGGTCGC	AAAACCTAAT	1440
GATGTCGCCA	AACTTGCAGG	CGTCAGTCCT	ACTACCGTTT	CTCGGGTTAT	CAATAAAAAA	1500
GGGTATCTAT	CTGAGAAAAC	CATCCAAAAA	GTCAATGAAG	CCATGCGAGA	ATTGGGCTAT	1560
AAACCAACA	ACCTGGCTCG	TAGTCTGCAA	GGAAAATCAG	CTAAGTTAAT	CGGCTTGATT	1620
TTCCCCAATA	TTTCCAATGT	TTTCTATGCA	GAATTGATTG	ATAAATTGGA	ACACCAACTC	1680
TTCAAAAATG	GTTACAAGAC	CATCATCTGC	AACAGTGAAC	ATGATTCTGA	GAAGGAACGC	1740
GAATACATCG	AAATGTTGGA	AGCCAATCAG	GTGGACGGCA	TCATTTCTGG	TAGTCACAAC	1800
CTAGGAATCG	AAGACTACAA	TCGTGTGACA	GCGCCGATTA	TTTCCTTTGA	CCGAAACCTA	1860
TCGCCAGACA	TCCCTGTCGT	CTCCTCTGAC	AACTATGCTG	GTGGGGTTCT	TGCTGCCCAA	1920
ACCTTGGTCA	AGACAGGTGC	CCAGTCTATC	ATCATGATTA	CAGGGAATGA	CAATTCTAAT	1980
TCGCCAACCG	GACTGCGCCA	CGCTGGTTTT	GCATCCGTAC	TCCCAAAAGC	TCCTATTATC	2040
AATGTTTCCA	GTGACTTTTC	TCCCGTCAGA	AAAGAAATGG	AAATCAAGAA	TATCTTGACC	2100
CGGGAAAAAC	CAGATGCCAT	TTTTGCTTCG	GATGATTTGA	CAGCTATTCT	GGTCATTAAA	2160
ATCGCTCAAG	AATTGGGCAT	TTCTGTCCCA	AAAGAGCTCA	AGGTCAATCG	CTATGATGGG	2220

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ACCTACTTTA	TCGAAAATTA	CTACCCTCAA	TTGGCTACTA	TCAAGCAACC	TTTGAAGAG	2280
ATTGCTTGTC	TCACTATTGA	TCTTCTCTTG	CAAAAGATTG	AAGGCAAGGA	AGTCGCCACA	2340
ACTGGTTACT	TCTTACCAGT	TACGCTATTA	CCAGGAAAAA	GTATTTAAAC	ACAAGAAAAC	2400
TCAGACCGAT	TCGTCTGAGT	TTTATGATC	TTAAATTTTC	GAGATAGCGC	TGGGCTGTCT	2460
CTAGGTAAA	GGTTTATCT	GAGATGAGGC	GCTCTACTAG	GGGAGCAACT	TCAGATTCAC	2520
TAGCCCCAGC	TAGGAGAGCT	AGGGATTG	CCTGTAGTTT	CATGTGGCCT	TGCTGGATGC	2580
CCGTACTTAC	CAAGGCTTTG	AGGGCTGCAA	AATTTTGAGC	AAGACCGATG	GACACGATAA	2640
TCTGGGCTAA	TTCTCTGGCA	GAAGGATTTT	CTAGTAGATC	ATGACTGAGA	ACTACACGTG	2700
GGTTGAGGCC	GATAGAGCCA	CCCTTAGTCG	CTACAGGCAT	GGGCAGGGTC	ATCTCACCGA	2760
CCAATTCTTC	TCTTTCAAGG	TCCAGCGTCC	AGCAGCTAAG	ACCTTGATAG	CGTCCATCTC	2820
GA CTGGCAAA	GGCATGGGCC	CCAGCTTCGA	TGGCACGCCA	GTCATTACCA	GTGGCAATCA	2880
AAATCGCATC	AATACCATTA	AAAATTCCTT	TATTATGAGT	AGCAGCTCGG	TAAGGATCAG	2940
CCTGCGCAAA	CTGACTAGCC	AACGCAATTT	TCTCCGCAAT	CTCTCGTCCT	TGATCCTTTT	3000
GGCGGCTCAA	GTAGCGAAAG	GCGATGCGAC	AGCTTGCAGT	CACCAGAGAA	TCGGTCGCGT	3060
AGTTGGACAG	GATTCCCATG	AGACTCTGTC	CCTGACTGAG	TTCTTCTAAG	ACTGGTTTCA	3120
AGGCTTCCAG	CATGGTGTG	AGCATATTGG	CACCCATGGC	TTCTTGGGTA	TCGACATGAA	3180
TATAAACAAC	GAGAAAGTCT	GGTTCGCCTT	TTATCTGCTC	GACATGCAGA	TCACGCGCCC	3240
CACCTCCACG	TTTAACGATA	GAAGGATAGG	CTTGATTGGC	AAGCTCCAAG	AGCTCCGCTT	3300
TCTTGCTGGC	AATCTTCTCT	TGCGCTAGTT	TAGGATTAGC	AACTTGATAA	AGGGCTACCT	3360
GCCCAATCAT	CTGTCGCTGA	TGGACTTGTG	CAGTAAAACC	ACCTGCACGC	TTGATGATTT	3420
TGCTGGCATA	GCTGGCCGCC	GCAACCACAG	AGGGTTCTTC	TGTCACATAG	GGAACGGTGT	3480
ATTCTGACC	GTTGACAAGT	ACCTCCGGAA	CCAGTGAATA	AGGCAGAGAA	AAAGTTCCCA	3540
CTACATTCTC	ACTCAGCTGG	TCTGCCACAG	TCACGCTCAT	CTGTTTCATCC	TTCTCCAGAC	3600
TAGCTTGTCT	CTCAGGACTA	AGGAGCGCCT	GAGCTTTTAA	CAGCTCGAGG	CGCTCTTGGT	3660
ATGATTTTTT	AGAAAATCCA	TTCCAACCTA	TCTTCATTAT	TTTCAACCT	TGCTATAACG	3720
GCGTTGGTGG	TCGAGAATTT	CAACCAAGGC	AAAATCTTGA	TTTTCATAGC	CAGCAAACCTG	3780
GGCAGAGTTA	GTTTCATCCA	AGTTTACTTC	CTCAAAAAAG	ACCTTTTCAT	AGTCTGCAAC	3840
GGATAGGGCA	GTTCTGTTGGT	TGAGCTTGTT	CAAACGGTCT	TTATCCAAAT	AAGCTTCATA	3900
TCCTTCAACC	AATTCACCAC	TGAAGAAGTC	AGCCACAGCT	CCACTTCCGT	AACTATAAAG	3960

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GGCGATTTTA	TCCCCAGCTT	TCAAGCTATC	TGTATTTTCC	AAGAGAGACA	AAAGTCCAAG	4020
GAAAAGTGAA	CCTGTGTAGA	TATTCCCCAC	CTTTTGA CTG	TAGAGAATAG	ACTGGTCAAA	4080
ATGCTTTTGT	AAGAGGTCTT	TTTTCTCTTG	AGGCAGGCTC	TTATCCATGA	TTTTTTTCAA	4140
GCCTTTTAGC	GCTAATTTAG	GATAAGGCAA	GTGGAAACAA	ACAGCCGCAA	AATCATCCAA	4200
AGTAAGCTGG	TAGCGTTTTT	GATATTCAAG	CCAAGTCGTT	TTCAA ACTAT	CCAAGTATTG	4260
TTGGGTAGAA	TAGACACCAT	TTACATAAGG	AGTTGTCTGAG	TAATTTGGTC	GCCAGAAATC	4320
CATGATGTCA	CGGGTCTGAG	CTACATTGTC	ATTATTAAAG	GCCATCATGC	GTGGATTTTG	4380
TGTAATCAAC	ATAGCTACAC	TTCCAGCACC	TTGAGTTGGT	TCTCCTGGAG	TTTCAATACC	4440
GTATTTGGCA	ATATCACTGG	CAATGACCAA	GACCTTGGAC	TCCGGAGAAT	TTTCCACATG	4500
CAATTTGGCA	TAATGGAGGG	CAGCAGTCGC	TCCGTAGCAG	GCTTCTTTAA	TCTCGAAACT	4560
ACGAGCAAAG	GGCTGGATGC	CCAGCAAGCC	ATGCACAAAG	ACGGCCGCAG	CCTTACTCTG	4620
GTCAATTCCT	GACTCGGTCTG	CCACAATGAC	CATGTCAACT	TCTTGTCTTT	CTTGCTCAGT	4680
TAAAATAGAG	TCAGTAGCAC	TGGCCGCCAA	GGTCACGATA	TCCTCAGTTA	GGGGCGCAAT	4740
ACTCAATTCC	TTGAGTAAGA	GTCCTTTACT	TAATTTTCA	GGGTCAATTC	CCCTCGCTTC	4800
TGCTAAGTCT	TGTAATTTCA	AGACATATTG	ACTGGTCGCA	AAACCAATCT	TATCAATACC	4860
GATTGTCATA	TTTACCTCTG	TTTTATCATT	CATGTAAAAA	ATCGTTCTAT	ACTATTTTAT	4920
CACAAATGGC	AGTAAAAGAG	AGAAAAAAGA	CTTGATTACAC	CAAATCAAGC	CTCTTATTGG	4980
TCATCATTTT	AAAGAATGAT	TAGTTGCTAG	AGAGTTCACC	GATATAAGTA	GCTTTATAAG	5040
CTCCATTACAC	AGTTATCAGC	TCCTGGAGGA	TCAAATTTCC	TGAGTAAGTC	CTTCCCATCT	5100
CATCTACAAA	TTTTTGATAA	AACTGACTGG	TCGGAATTTT	TCTGACATCC	TTATCAAATG	5160
TCTTATCAAG	TGTTTTACTA	ACCTTCTCAG	CAATCAATTG	ATGCTCTTGC	CATCCACTTT	5220
GAAACTCTGA	GCCCCGA ACTA	GAAACCATGA	CTGGGATAAA	CAACAAGGTC	AGTAGATTTA	5280
CAGACAATAA	GGAAAGTAGT	AGACTTCCTG	CAAAACTAGA	ATCCTAGTTC	ATGATTGATA	5340
ATACCAGCAA	TCAAATTCAT	TCGTAATCCG	AAGCGTTTAC	GATGATTTCTG	ATAGGTTGTT	5400
GAAAACATTT	TAAACGTTTT	TACTTTGGCA	AAGATGTTCT	CAACCTTGCT	TCTCTCCTTA	5460
GATAGCGCAT	GGTTACAGGC	TTTATCTTCA	GCTGTTAGCG	GCTTGAGTTT	GCTGGATTTA	5520
CGTGGAGTTT	GTGCTTGAGG	ATATATCTTC	ATGAGCCCTT	GATAATCACT	GTCAGCCAAG	5580
ATTTTACCAG	CTTGTCCGAT	ATTTCTGCAA	CTCATTTTGA	ACAACCTTCAT	ATCATGACTA	5640
TAGTTCACAG	CGATATCCAA	AGAAACAATT	CTCCCTTGAC	TTGTGACAAT	CGCTTGAGCC	5700
TTCATAGCGT	GAAATTTCTT	TTTACCAGAA	TCATTCGCTA	ATTGTTTTTT	AGGGCGATTG	5760

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ATTTTACTT CCGTCACATC AATCATTATC GTGTCCTCAA AGCTGAGAGG AGTTCTTGAA	5820
ATCGTAACAC CACTTTGAAC AAGAGTTACT TCAACCCATT GGCTCCGACG GATTAAGTTG	5880
CTTTCGTGGA TACCAAAATC AGCCGCAATT TCTTCATAAG TCGGTATTTC TCGCACATAT	5940
AGAAAGCGTT ATCAATTTAT TTATCTCATT TTTCAGAAAA TTCTTTTATT TCTGTAAAGT	6000
CTACGATACT CGATGTGTTT TTATATAATG ATAGAGTCTG AGAATCACTG TTCCGCTAGC	6060
CATTCCAATA GAGATTACCA AAGCCAACAT GACAACCAAG GTCGCACTTG CCAGTGCTTT	6120
ATTATAGTCC CCTGTCACAA AAAAGGCAGT TGTTCCGTAG GAGAGATAAC CTGGAACCAG	6180
CGGTGCCAAA ATGGCCAAGA TAAAGACCAC AGCAGGTGTC TTATAAAGAA TACTTAAAAT	6240
CTGGCTGACA CAAGAACCAA TAATGGCTGC AATGAAGGTA GCTACAATGA CATTGGTCGG	6300
TTCCTTGAGC AAGAGATAGA TTAGCCAGAC AGTCATGCCC AAAATCCCTC CAGGTAAGAG	6360
CATAGACCGT TGCACATTGA GTACGATTAA AAAAGTGATA ATGGCAAGAA AACTTGCTAC	6420
TGCTTGTAAT AAAAAGGTTG TTAGTGTCAT ATTAGTTCAT CAATACCAAG GCGACAGAAG	6480
TTCCTGCCCC TAAAGCGAGG GTAATGAGCA GGGATTCAAA CATCTTACTC ATACCAGAGT	6540
TTATGTGGTT GGTGATAATA TCACGGACCG CATTGGTCAA GGCAATACCT GGTACAAACG	6600
GCATGACCGC ACCAGCTATA ATCAAATCTG CCGTTGAAGG AAAACCTGTG TAGCGAGCCC	6660
AAAAGTGGGC AATTATCCCA AAGACAAAGG CTCCAGCAAA GGCTGTCACA AAGGGAATTC	6720
GGATAAATTT TTCCACATAG AGGGAAAAGG CAAAACCAAA TAAGGTGCGC ACTCCTGCCC	6780
CAAGTGCGTC GTAGATATTT CCGCTAAACA TAACTGAAAA GAAAGGAGCA CTAAAGGTCG	6840
CAGCCAGAGT TACCTGCAAC TTAGTATAGG GAAGGGGTTT GGCTTGCAAG GCCGTCAATT	6900
GCTTAAAGGC TGTTCCTAAG TCAATCTGCC CCCCACCTAG CTGACGAGAA ATCTGGTTCA	6960
CATCGCAGAC TTTTTCGATG TTATAAGAAG AGGAGGTCAC GCGCTTCATG CGCAAATATT	7020
GGTATTTTCA ATAGAGAAAA AGATAGCGGC AGGCATGGCA AGGACATTGC AATCCACAAT	7080
CCCCTGCGAA TGCGCGATTC GAATCATGGT ATCTTCTACA CGATGGATTY CTGAGCCACT	7140
TTTAAGGAGA ATAGTCCCCG CTAGCATAAT CACATCAATG ACGGCATTTA ATTCTTTTGA	7200
TTCTTCCATG CTTTCCTCCT TTTATCAACT CCCTCTATTG TATCACAAAT CCGGACTCAA	7260
AAAAATCTT TGCCATGAAA TCATGACAAA GATTGATTAC TCATTTTGAT TATCCATCTG	7320
CTTTTAAGGA GTAGCTGAAG TTGTTTTAGG TTTGTAGATT GAAATCTTGA CTCTAGTCTT	7380
ATTGAGGTCT ACCTTTTCAC CTGCTCTAGG ACTTTGTTCA ACAACCATGC CTTCTGCACT	7440
ACCTGCAGGC GCTGTCGTCA CTTCTACAAC TTCTATATTA GCTTCCTTAA TCCCAACAAT	7500

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TTGAATCAAA	TTGTTCTTAG	TAAACTCCAA	GCTAGAACCA	ATGTAACCTG	GCATGGCAAC	7560
ACTTGTAAC	TTTTTAGCTA	CTGTCAAGAC	AATTTGAGTA	GGTTTACTCA	CATCATAAGT	7620
CGTTCCGGCA	CCTGGACTTT	GTTTCATAAT	CGTTCCTGGT	TCGCTTTCGC	TGGACTCTTC	7680
TTCCTCTATC	TTAATCAAAT	TCTCAGGAAC	CTTCTTCTGC	TTGAGTTCTG	AGATTACTTC	7740
TGTAGAGTTC	CGTCCAATAT	AGTTCCCTAA	TTGAATCGTC	GTAGCTTTTT	TAGCTACTGT	7800
CAAAACAATT	TGAGTTGCCT	TGCTCAAGTC	ATAGGTCGTA	CCTTCTGGTA	GACTTTGCTT	7860
CAGGACCGTT	CCAGCCTCAC	TCTCATTCGA	CTCTTCTTCC	TCAATTTTAA	TCAAATTATC	7920
TGGAACTTTT	TTCTCTTTTA	ATTCCGCAAT	GACATCAGAG	GATTTCCGAC	CGACATAATT	7980
ACTAATTTGG	AAAGATTGCT	TGCCTGATGA	GACAACCAAA	TTGATTTTCG	TTCTTCTTTT	8040
TCGACCAGTT	CCAGCGCCAG	GATCTGTACG	GATAATCCGC	CCTTCTTCCA	CCTTTTCACT	8100
AGCCTCTGTC	TTCTCCTCAC	CAATCTCAAA	ATTGGCTTTT	TTGAGCGTTG	CCTTGGCCTC	8160
TGCAACTGTC	TGACCTGCCA	CATCTGGAAT	GGCAATGGTT	GCAGGAGTTC	TGGATAGTAT	8220
CCAAATAAGA	GAAGCTGCCA	CCAATACAAG	GCTGGCCAAC	AAAATCAGGT	AACGCATCTT	8280
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GTTTTTGATT	GATTTGTGTT	CTGTTTGCGC	TTGAACCTTA	GGAATAGATG	TCAAGGTACT	8400
CTGAGAAACC	TTGGCAAGG	TCTTGGTATC	TGCCTTGCTC	GTTTCATCAA	AGATTAACTT	8460
ACTTTTATTT	CTACGATTGT	AGGACAAGCT	ACTAGACAAG	TCCACATACA	TCTCTGAAAC	8520
CGAGCGGTAG	CGATTGGTCA	ACTTTTTAGC	AGTTGCCTTG	ATAATAACAT	TTTCTAAAGC	8580
CTGAGGTACA	GATGGATTTT	CTGCAATAAC	GGACGGCAGG	GGTTTCTGGA	AATGCTGGAG	8640
GGCAATGGTC	ACCGCGCTAT	CCCCGTCATA	AGGGATATGG	CCTGTCAGCA	TCTCATAGAA	8700
AATAATCCCC	ATGGCATAGA	TATCACTCTG	CACAGTCGCC	TTCGAACCAC	GCGCCTGCTC	8760
TGGTGACAAG	TAATGAACTG	AGCCCAACAT	CGAGTTAGTC	TGGGTCAGAC	TTGTCTCTGC	8820
AAAGGCTACA	GCAATCCCAA	AGTCTGTGAC	CTTGGCAGTC	CCATCTGGTG	TCAAGAGGAT	8880
ATTTTGAGGT	TTCAAGTCCC	TGTGAACAAT	TCCTCGAGTA	TGGGCCAAGC	GCATAGCCAA	8940
GAGAATTTGT	CCCATGATAC	GGACTGCTTC	TTCAATTAGAA	AGAGGATAAT	GTTCCTTGAT	9000
ATAGCGTTTG	AGGTCCAGTC	CAGCCACATA	CTCCATAGCT	AGGTACTGTT	GACCGTCTTC	9060
CTCGCCAATA	TCTGTTATCC	GAACGATATG	AGGATGGTCT	AGATCTGCCA	TAGCTCTCGC	9120
TTACGCTGA	AAACGAGCTA	CAGCTATCGG	GTCCGTCTGG	TAGTTGGTCC	TCAGAACCTT	9180
CACTGCCACT	TCTTCCCCAT	CTAAGATTAA	GTCTTTGGCT	AGGTAGACAT	CCGCCATACC	9240
TCCTCGACCA	ATCTGTTTGA	CAATCCGATA	GCGTCCGGCA	AAAATCTTGC	CGATTTGGAT	9300

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CATTCTGCAT	CCTCCTCGTT	CATAGAAACA	AGGGCAACCG	TAATGTTGTC	TAAACCTCCT	9360
GCATTGTTAG	CAAAACGAAC	AAGTGTCTCC	GTTTTATCTG	CTAAAGGAAT	ATCACTGGTT	9420
ACAATATCAC	GAATCTCACT	GCCTGAAATC	ATGTTGGTCA	AGCCGTCAC	ATTGAGCAAG	9480
AGATAGTCAC	CTGACTCAAG	GATAACTGTC	CCAAAATCAG	GCTGAATTTT	ATCTTTTTCG	9540
CCAATAGACT	GGGTGATAAT	ATTTTTTTGC	GGATGAGCTT	CTGCCTCTTC	TGGTGTCAAT	9600
TGACCAGCCT	TGAGCAATTC	ATTAACCAAG	GAATGATCGC	TCGTCAACTG	ATGGTATTCT	9660
TCTCCACGAA	TCAAGCCGAT	ACGCGAATCA	CCAATATGAG	CATAGATAGC	CTGATTATCA	9720
ATAATAGCAA	GGACTTCCAA	AGTAGTTCCC	ATGCCTCTGT	AAGCTTCATC	CTGACCAAGC	9780
TGGTGAATCT	TTTGATTTTC	AATTTCTAGG	TAATGGGCGA	ACCATTACAG	CACTTCATTG	9840
ACTGTATCGA	TCTGGGTATC	AACCCAAGCT	ACACCCAGGT	CTGTGACCGC	CATTTCACTA	9900
GCGATATTCC	CTGCGCGATG	ACCTCCCATC	CCATCAGCTA	AAATAATCAT	GGTACGTCCA	9960
GCTCTATTGA	CATAGTGGTT	GACATAGTCT	TGGTTATTTG	TTCGTTTCTG	ACCAACATCT	10020
GTTAATAATG	AAATTTCCAT	GTGTCAGTTC	CTTCCTAATC	CGATATCTTG	CGAAATTGAC	10080
TGATGAAGAA	TCCATCACTT	CCATACAATT	CAGGTGTAAT	GAGGATACAG	CCGTCTTTCA	10140
TGATATCCTT	ACATTCATGT	TCTAGTTTTA	CCTGCTCGAA	CTCGGGATGA	CTCTCTAAAA	10200
AGGCCTTAAC	GACTTGAAAA	TTCTCCTCTG	AGACGATAGT	GCAGGTGCTA	TAAGTTATTA	10260
TACCACCTTT	GCCTAGTATT	TGACAAACAC	TACCTAATAT	TTCTAACTGA	ATTTCCCTGCA	10320
AGGACGCGAA	ATCTGCCGTT	TCTTTATTGT	ATTTGATATC	TGGTTTTTCG	CGCAAAAGAC	10380
CGATTCTCTG	ACAAGGAGCA	TCCACCAAAA	TCTTATCAAA	GGAATCCTGG	TCAAAAAACT	10440
CATGCACCTT	TCTGGCATCC	AATTTTTGAG	TTTGAACCCG	ATCTTCAACT	CCCAGACGTT	10500
GGGCATTTTC	TTGAATTAAA	TCCAACCTGT	GGTCGTACAA	GTCCAGAGCA	GTAACCTGAC	10560
CTGTCGTAAG	ATAAGAGGCT	ATATGGGCTG	TTTTCCCACC	TGGAGCCGCA	CAGGCATCAA	10620
GCACTCGCTC	ATCACCTTGT	AAATCAAGCG	TCGGAGCAAC	CAGCTGACTG	GACTCATCTT	10680
GGATGGTAAT	GGCTCCATCC	GCAACAAAT	TATGCCCTGC	AAAATGCCCC	TGCTCCTTAA	10740
CCAGACCAGT	GGTTGCTAAA	AGGGAATTAT	TCCCTCCAA	CAAGGCTTGG	ATTTCCCTCT	10800
TTGACTTAG	GTCTGTTACA	CGAATACTGG	CTTTGTTTCG	CACTAACAGG	CTTTCAAAGA	10860
TGGCTTTTGC	TCTCTCCTCT	CCGTATTCTT	CCTTGAGTTT	GGCAACTAGC	CAAACCTGGG	10920
GAGAATAGGC	AATGGAGTCA	CGCTTGTTTT	TTGCTTGAT	GCTAGCAATA	TCTGGCCAGC	10980
CTTCACGCAA	GATACGGCGA	AGGACAGCGT	TGACCAATTT	TTCAGTGCCT	TTTTTACGGA	11040

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GTTTGGCCAA TTCCACTGCT TCATTAACCA CAGCATGATC TGGAATCTTG TCCAAATAGC	11100
GGAGTTGGTA GGCACATG AGAAGAAGGA CATAGAGCCA GCTGTCTAAC TGGTCTCTGT	11160
CTTCGATAAA GTGGGATAGG TACCATTCCA GAGTCAGTTT ACGGGCTACC GTTCCATAGA	11220
CCAGCTCGGT CACTAAGCCC TTGTCTGCTG CAAAAAGTTG ACTTCCCTTT AGATGCTTAT	11280
TTAAGGCGAT ATTTGAATAT GCTTGGTTCA CAAAAACATC CTCTAGCACT GCTAGAGCTA	11340
AACTTCTAGC CGTTTCTACT TTAGTCACCA AATCGTTCTC CTACAGTCAA TGTACGTCCA	11400
ACTCCGTTGA GGAAGGAAGC AATGTCCATC TTAGGCTTAC CAGCTGGCTG CACTTGTGTTG	11460
AGGGATAGAG CCCCTTCAGC CGTTGCGACA ATCAATTCTT TCTTGCCGAT AGAGAGAATC	11520
TCACCTGGAT TTCCCTGACC TTCTACTGGT AGGGCTTCAT AAATCTTAAA GCGGTCGCCC	11580
TTAAGGAAAG TATGGGCAAC AGGCCAGGGG TTCATTCCAC GAATTTGGTT AAAGAGTTGA	11640
CGATTGGTTT TGTTCAGTC CAGTTTTTCT TCCTCTGGCT TTATATTTGG AGAGAAGGTA	11700
ACCTGACTCG TATCCTGCGG TTCAGGTTTG ATATCACCAG CAATATAGGC AGGCAGAGTG	11760
TCCAAAAGCA AATCAGGACC AACTAGCGCC AATTTTTCAA ACAAGGTGCC AACATTGTCC	11820
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GCACCACCAC GGTGTCTAGG AAGGAGGGAG GCATGAACGT TGACAGCAA GTCCATGCTA	12000
TCAAGGAGTT TGCTTGGGAG AAAGTGGCCA AAAGCAGCAG TCACAATTCC ATCTGCTCCT	12060
AGCTTCATAA GATCTTCCAT CTCTGGACTT CCAGATTAAT TTTCAGGTTG GTAGATAGAT	12120
AGTCCTGCTT CCTTGGCAGC CTGCTTGACT GGGGTTTCTT GGATAACTTT TTTACGACCA	12180
ACAGCACGGT CTGGCTGGGT CACAACGGCT AGAATTTCTG AACGGTCATC TGTCAAAAGT	12240
CCTTTTAAGA CTGTTGCTGA AAAGTCGGGG GTCCCCATAA AGATTAGTTT TGTATATCT	12300
TCTCCTTCTT ATAAAAATTG CTGCGGCTCA TGGTCAATGC TGAGACGGAG CTCACTATTT	12360
TCCCGTTCTT GAGTCAAGGC TAAAACCTGG TTGAGGGTCG ACCCCAGCTC ATCTTCTAAA	12420
CGGTATTTAA TTAAATCTG GTAATGATAG AGGTTGTGGG TACGGGCAAT CGGTTTTGGC	12480
GTTGGCCCCA GAATGGGACT GGTCTCTGAC AAGCCTGACC GCAAAATGTT CATGACTTCA	12540
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TAGTAAGGTG GATAGCCGAG TTGTCGCTG ATTCCCATT CATAGGCATA AAAGCCTTCG	12660
TAATCTTGAT CCTTGGCAA TCGAATAGCA TAGTGCTGCG GATTGTAGGA CTGTATCAAG	12720
ACTTGACCTG CCTTTTCAGC CCGACCTGAT CGACCTGCCA CCTGAGTCAA GAGCTGGAAG	12780
GTCTCTCAG AAGAACGGAA ATCAGGCAGA TTCAAGGCCG TATCCGCATT TAGAACTCCG	12840

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ACTAGGGTAA CATTGGGAAA ATCCAAACCC TTTGCAATCA TCTGAGTACC AAGTAAAATA	12900
TCCGCTTCCC CTCGCCAAA CTGGTCAAGC AAGGCTTGGT GACTGCCTTT CTTTCGAGTC	12960
GTATCCACAT CCATCCTCAG AATGCGAGCT TGGGGAAAGA GTTCTGCTAG CTCATCATAA	13020
GCCTTCTGAG TTCCCGTCCC ATAGTAACGA ATACTGCGGC TCTTACAGTT AGGACAGACC	13080
TGAGGAATAT CCTTCGAGAA ACCACAATAA TGGCAGTTCA TAGTCTTGGT ATCCATATGC	13140
AAGGTCAGAG AAATATCGCA GTTGGGACAA GTATCCACCG TCCCACACTC CCGACACATG	13200
ACAAAGCTAG AATAACCACG GCGATTGAGC ATGAGAACCA CCTGCTCTTT TTTAACCAGA	13260
CGGTCTTGGA TAGCCTCTAG CAAAGGAGGC GTAAAGTTTG ACGTCTCATT TTCTCCGATA	13320
TAGTCTCGAA AGTCAATCAC TTGAACCTCA GGGATTGTAG CCAAAGGATT GGCACGTTGG	13380
GTTAGACGTA AGTGTTGATA GACGCCTTTG CCAGCACGTG CCCGGCTCTC TAAGCTCGGC	13440
GTTGCAGATC CAAGTACCAG AGTTGCTTGA TTATACTGAG CCCGTAAAAT AGCTACCTCT	13500
CTGGCATGGT AACGGGGATT GCTGTCCTGC TTATAAGCCG CTTCATGCTC TTCATCAATA	13560
ATCATGACAC CCAGATTTTT CAGAGGAGCA AAGATAGCAG ATCTGGCACC AACAACAAC	13620
TGGGCATCGC CACGCTCCAC CTTGCGCCAT TCATCATACT TTTCACCATT GGATAATCCT	13680
GAGTGAAGAA TGGCTACCTT GTCCCCAAA CGTGCTATAA AACGCTCGGT CATCTGAGGA	13740
GTCAAGGAAA TCTCAGGTAC CAGCAAAATA GCTGCTTGC CCTTATCCAG GGCACCTTGG	13800
ATAATCTGCA AGTAAACCTC GGTCTTCCCA CTTCCTGTAA TCCCTTGAAG TAGAAAGGGA	13860
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AACTCCAAAG GTCTACTTGC TTCAATTCCT TCAAAATAAG CAGCCGAGCG TTGAACTTCC	13980
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TCCAAC TTTT TCTTGGCAG TGTAGAAATC TCAACACCTT CTAATTGAGC ATGGTCAACC	14160
TCATACCAAG ACTGGGTCTT GACCTTCTTT TGATCGACTC CCTGATAATC CAGACCAACC	14220
AGGCCTTTTC TAGTCAAACG CATCATTTCA GCTTCTTGG CAAGGTCTAG TGAAGAAAAG	14280
GCTAGCGAAT CTTCTGAACC AAACAGGCGC ACTCGTTCTT CCTGACTCAA GCCTTCCAGA	14340
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GAGATTTTGT AGGAGAAGAC AGATTTGCGT AACTCCTCAG CCAGCCAGAG TTGTTCTGGC	14460
GTGAGAACAG GAGAAAAATC CAGCACCTCT GCAATATCTT TTAAATCTTG CTCCATCTCT	14520
TCTCCATCTG ATTGGGACTT CAAACCAAGA ACAATCCCTT GAATCAGGCG ATTACCCTTA	14580

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CCAAAAGGCA CATGAACCCG CATCCCAACT TCCAGCATTC CCTCAAATTC CTCCGGAATC	14640
CTGTAACTAT AGGGCTGGTC CGTCTGCATC AAGGGCACAT CTACGATAAT CTTAGCTAGG	14700
GCCATCTTCT CACCTCCTCC TTGTCAGTAC ATTCTTGCAA TAGAAAAAAT AAGATTGAGT	14760
CCCCCAACC TTAAATTTT TCACCATCTT CTTTTTCTTT AGCAATTTGC TCTTTGATTT	14820
TCTTTTCTTC TTCTTCTTG CGGCGTTTTT CTTCTTCGAT ACGGCGACGC ACTGCTTCAC	14880
GTTTTCTTC TGGATCTGGG TGAATTGTAA CGTTTCCTGA TTCGATTCT TCTAAAGCGC	14940
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TATCAATAGA GGGTTTAAAC ATCATTGCT TGTACCTATT TTCTAAATTT TATCGGGTAG	15120
TTGGAGATTT TGGTAACATC TCCTGATAGT GACCAATGAC ACGATCCACA CAGAAGTGTT	15180
CTGCTTCAAT CACACATTTG ACACGTTTCA CAGCTAGGGG TACCTGATCG TTGACAATCG	15240
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CTTCCAAATC ATGGAGACGC TTGATGTAGC TTTCAAGAGA CTCCTACGA GCACCTGGAC	16140
GGGCTGCGCT CAAGGCATCT GCTGCAGCGA CGATAACTGC TATCAGCTC TCAGCTTCAA	16200
CATCTCCGTG GTGACTAGCA ATCGTATTCA CCACAACTGG GGGTTCCTTG TACTTACGGG	16260
CCAATTCAT ACCGATTTC ACGTGGCTAC CTTCAACCTC ATGGTCAATG GCTTTCCCGA	16320
TATCGTGAAG GAATCCAGCA CGACGGGCAA GAGCCGCAAT TTCACCAAGT TCGCTCGCCA	16380

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TGATACCAGC	CAACTTAGCA	ACCTCAATCG	AATGGCGCAA	AACATTTTGT	CCATATGAAG	16440
TACGGAAC TG	CAAACGTCCC	ATAATCTTCA	TCAAGTCTGG	ATGAAGGTTT	GGCGCACCAA	16500
TTTCATAGGC	AGCAGCCTCA	CCGTATTAC	GAATCTTATT	GTCAATCTCT	TGACGGTTTT	16560
TCTCAACCAA	CTCTTCGATA	CGAGCTGGAT	GTATACGACC	ATCTTTGAGC	AACATTTCCA	16620
TAGTCATACG	GGCAATCTCA	CGACGAATCG	GATCAAATCC	TGACAAGGTC	ACCACTTCTG	16680
GTGTATCGTC	GATAATCACA	TCGACCCCTG	TCAAACCTTC	AAAGGTACGA	ATGTTACGAC	16740
CTTCACGACC	AATAATGCGT	CCCTTCATAG	TATCGTCTGG	CAGATGAACT	GTTGAGTTTG	16800
TTGACTCCGC	TACATATTCA	CCAGCGATAC	GTTGCATAGC	TTGAACCAAG	ATGTCCTTGG	16860
CCATTTTGTC	AGAACGTTCC	TTGACCTCTT	GCTCAGCTTC	GCGAATGCGA	CTGGCAATCT	16920
CCCTGGTCAA	GTTTTCCTCT	GTCTGAGCCA	AGATAATATC	TCGTGCTTCT	GCCTGAGACA	16980
GCGCACCAAT	ACGCTCTAGT	TCTGCTTCTT	TTTGTCTTTC	GACTTCCTCT	AATTGCTCTT	17040
CACGCGCATC	AAGGTTTTTC	GCTCTATCAG	AAATACTTTG	TTCTTTTGT	TCAAGTGTTT	17100
GTTCTTTACT	CGTCAAATTG	TCGTCTTAC	GGTCAAGGCT	AGTAGCTCTC	TCTGTCAAAC	17160
GACTTTCGAT	TTGTTGAGT	TCTTGACGTT	CTGATTGAA	TTGAGCGTCC	ACTTCTTCAC	17220
GGTATTTTCT	GGCTTCTTCT	TTGGCCTCCA	ATAGTGCTTC	TTTTTTAAGA	GACTTGCTTT	17280
CACGTTTGGC	TTCATTAACA	AGTAAATCCG	CTTCACGCTC	AGCTTGTTCCA	CGTAAATTAG	17340
TTGCTTCTTG	TTCAGCATTT	AAAAGCATCA	ACTCTGCAGC	TTCTGAGAT	GATTTCATCT	17400
TAGCTGAGAT	GCTGACATAT	CCAATGACTA	AACCAATGAT	GACGGCAAAA	ACAGCAATCG	17460
CAAGCGACAT	GATTTCATG	TTTTTACCTC	ATTTTATTGT	TATTCCGAAT	GACATACATT	17520
CTTTTACATT	CTACCATAAA	AAAGTGATTT	TCACAAACCT	AAAATAGAAT	ATGTTTTGAC	17580
GAATTTGGAA	CACATTTACC	AAAATAAACT	TGTTGTTTAG	AAATAGTAGT	TTAGTAGAGA	17640
CTTGAGAAAA	AGCCTACCTT	TCAATAGACT	TAGTAATGAT	CTTTAAAGGA	CAAGAAAGCC	17700
ACGCTATCTC	CATCCATCAT	ATAAATCAAG	CGATTTTCTG	CATCAATACG	CCGTGACCAG	17760
GCTCCTTGGT	AATCATATTT	GAGTGGTTCT	GGTTTACCTA	TTCTGTAAA	GGGATCACGT	17820
TGAATATCCT	TGATTAGTTT	ATTGATTCTT	TTTAACGTTT	TCTTATCCTG	ATTTTGCCAG	17880
TAGCAATAAT	CTGCCCAGGC	ATCTTCTGTA	AACTTGAGCA	GCATTTCTTA	CTCCTCAATA	17940
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AGTTCCTTAT	TTTGAGCAAT	TCTCAGGGTT	TCTTGATAC	TATCCCACTC	ACTCTTTGAA	18060
AGGACTACAA	TGTCCTCATC	TGGATTTTTA	TTGACCACCG	TCAAAGGCTC	AAATTCATCA	18120

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TTTACCTTCT TCATGTAGTC CTTTAAATGA TTTTCGGAATG TTGAGTAAAG GACTGCTTCC	18180
ATAACCATAC CTCGTTTTAG CTCTTTTCCA CTATTATACA CGAAAAGAAA GAAATTGTCA	18240
GGAAC TTGTA CAAGATTTTC TTTTCTATCT ATTTATACTC AATGAAAATC AAAGAGCAAA	18300
CTAGGAAACT AGCCGCAGGC TGTACTTGAG TACGGCAAGG CGACGTTGAC GCGATTTGAA	18360
TTTGATTTTC GAAGAGTATT ATTCGTAAAA AATCTCAAAA AGCCTACCTT TCGGTAGACT	18420
TAGTTTGTTT CTATTC	18436

(2) INFORMATION FOR SEQ ID NO: 88:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 7001 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 88:

ACGTAGAAAA ACTATTTCTA TCACAGATAA TATTCGTAT GTTGTGGAG GTATTGAAAT	60
AAACGTCCTA GGTATCTTTC TCAGTCTATG TGACTTACAA GGGAAAAC TC TTTTCGAGAC	120
AGAAATTTTG AATGAAGATT ATCCTATTTT AGAAATCAAT TCCACCATTA CCAATATGAT	180
AAAAACAGCT ATAGAGTACG TCCCTTTGGA AACAAAATTA CTTGGATTTG GCTTATCAAT	240
ACCTGGACAT TATAACAAAG ACTCCGGAAG TATCATTACA AACAAACCCA TATGGGAATC	300
TTTTAATT TA TAAATGTAA TTAAAAGATT CAATTTTCCT TTTATTGTAA AAAATAATAT	360
CGATTGTATG GCTATAGGAC AATACCTTTT TAATCCACAC AATACCCCCG ATAACTTTAT	420
TTTCCTACAC GCTGGATTAG GTATTTACAC TTCCTTTTTC ACAAAGAAA AAATAGGAGC	480
CTCTAAAAAT CCTTATATCG GAGAAATTGG ACACACCATT GTCGAATTGA ATGGGCAATA	540
TTGTGAATGC GGAAAAAAG GTTGTTTACA AACATATATT TCGGATGCTT GGTAAATCAA	600
ACACGCCCAA TTATTATTTA AAAATTTCCA ACTAACTGTA CTAAAAAGCC TTGTAAAGAC	660
TGAAAAAGAC ATTCATTTAG ACACCTTTT AACGGCTTAT AATTTAGGCG ACTCCGCTTT	720
ACGTCAACAA ATTGATAAAG GAGTCAATTT ATTAGCCACT TCTATTGCAA ATCTCCTCCT	780
CATCAATCCT GCTGATAAAA TCTATATCAA CAGTCAATTG CTTAATTATC AACCTTTCAC	840
TCATGAAGTC AGGGATAAAA TCCAAGACCA GCTCCACTTC GTTCCCTTTA CTCGTAATAT	900
AGAAATTGAA ATTTTACCTT ACAACAAACA TCGTGGAAGT ATAGGAGCTT GTGCATTAGC	960
TATCGTCGCT TTTTTCATAG AACATAGCAA TGTATTACAA GATATTATTT CACCTTAATA	1020
TATTAGAAAT CTATAGACCT GTTTAAATCA ACTATAACCT GTAGTAGATA TCTCGTATTT	1080

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AGACAATATG AAAACAAGAC GACTTCCATA TAGGAAACCG CCTTCTCGCT ATGTTGAGTG	1140
ATTTATATTA AAATAACTTT TCTTCTAGCT GCATTTTATT ATTATAAAAA CATTTCATCAT	1200
AACCCCCAGA ACTTAAATAA CAATTTTTAT TCAAGATACA TACTCCTAGA ATAAACTTTA	1260
TATGAAATTC TCATTTTGT TTTTACAATT CTCCTTAGTT AAATCTTGT TAATATATGT	1320
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AACAATCAAT TGATGCTAAA ACCTGTACCT AGATGTTTCG GTTCATAAAA CCATGAACT	1500
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TCACAATATA TAAGTTCATC CTCGGAAAAA TATCATTCTA ATTGTTGAAA TGCCTACATG	1620
AAAAGAAACG TCAAATGCTC ATGAAACAAC GAATACAGGT ATCAAACTA TGACAAAACA	1680
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TGATAGCATT TCTACAAATA CAAGTAAAGA GAGCGGATGA GATTCAAACG AAATATGTCA	1860
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AATACAGACA CTCGTAACAA CTGCTTCATT TTTCTACCA CATATTTAGG AACAGGATAA	1980
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AATACTAGTG TAACTATCCT TCCAGTCAGA AGCTTGTCAT ATCACACCGA AAATTCCTCT	2160
AAAATTTATC TCGTTAGGCA ATCAAGCAAA AACTCGACGA TAGTACAAAC ATTATCATAC	2220
AGGATTGACT TCCTAAATTA TATACTTTAG TAAGGTTTTT GGATAAGAAA AAAGGTTTCT	2280
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GAGCATACTC CAACTCATAA ATATGTGATT TCATTAAATA AACCTGCTAA GTTAACCAAT	2700
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CTTAGAATAT CATGGTTTAC GTGCCACACA AGATGTTGAT GCTTTTATGG CTCTATAATA	2880
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CCCATATGAC CTATAATGAA AAGCGACAAA ACAACTCATT AGAAAGAATC ATATGGAACA	3000
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CATCAATAAG GATACACACA AGGAAATCAT CGCCAACTG GACTACGACG CCCCATCTTG	3120
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CCTCGAAACA ACTGGTATGC CTTCTAGAAT TCTCCTTAGA AAACGCCGTT TCAAGTGCTA	3240
TCACTGTTCA AAAATGATGG TCGCTGAAAC TTCTATCGTC AAGAAGAATC ATCAAATTCC	3300
TCGTATTATC AACCAAAAAA TTGCGCAAAA GTTGATTGAG AAGATTTCTA TGACCGATAT	3360
TGCTCATCAG CTGGCCATTT CAACTTCAAC TGTCATTTCG AAGCTCAATG ATTCTCACTT	3420
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AGTGACTGTT TCAATCGGGA GATGGAGATG AGCTTTATTG CGCAAGATTT TGAAAAGCTC	3540
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TATGACTTAG CTAGACAACT TTTCCCGTGT GCTAAAATCG TTCTTGATCG CTTTCACATT	3720
GTACAACATC TTAGCCGTGC TATGAGTCGT GTGCGTGTCC AAATCATGAA TCAGTTTCAT	3780
CGAAAATCCC ATGAATACAA GGCTATCAAG CGCTACTGGA AACTCATTCA ACAGGATAGC	3840
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GAGATTTTAG ACAAGCTTTT GAGCTATTCA CAAGACTTGA AACATCACTA TCAGCTCTAT	3960
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CGAGCTTAGC TTTTTTCAA CCCACTACAG TTGACAAAGA GCCGAAAAA GGAACAGCCT	4320
TAGCTTTCCT TTCATTTCTT TTTATTTCCC TCGTAGTAAA CGTGCTAGCT TCCACAAAAC	4380
AAACAGGATT CCCAGAAATG CCAGTACCAC TAGCCACCGG TACAACCATT GAGAGGTTGC	4440
AACACGCGAT ACAGATTGTC CTTCTTTCGT AAAAGCAACC CTCGCAACTG CAGCTGTTTG	4500
TGGATCTGAT TTTTGATAAA CAGCGACTCG TTCAAAATTC ACTAATAAGC GTTTATTAAA	4560
GGTAGGAATC GGATCGCAGG TTATCAAGGT CATGATATTT TTAGAGCTAA CCGATTCTAA	4620

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TTTTTCCCAT	TCCGACGGTA	AAATAATCTC	TGTGTCCATC	ATCTGATATT	CTACAATTTT	4680
CTGGCCATTA	TCATAATAAA	GAGCATCTCC	AACTTTTAGC	TGATCCAAAT	GGCGGAAAAA	4740
GACATGGCTT	GGCTCTGCAC	GGTGCCCGAG	AATCACTGAG	CGAATCCCTG	TACCATCCAG	4800
AGGCAGCGGT	GTACCATCCA	CATGAGCCAA	GCCCATCCCT	AAATGATGAT	AATCTGCTCC	4860
CAAATAAACC	GGCTCCATGA	TTTCCAAACT	TGGAATAGAC	AAGTAACCAT	AGACTGCATC	4920
AGGGTCGTCA	GACACTTGGT	AATTGACCTC	ATATCCCTCC	GCCAAAAAAG	GATCTACAAT	4980
GCGATTTTGC	GAAGCCAAGC	GTTGATTGTA	GGCGAGAGAA	TGGTTCTGTT	GTTCTTGTA	5040
CATTTAGTT	GTCATGGATT	TCACAAATGT	AGCATGACCT	TTACCTGTC	CAAGAGACTG	5100
CAACACCATC	TGTCCAAAAC	AATAAATAGG	AATCAAACAG	GCTACCAACA	TCAACAAGTA	5160
TCCCAATAAG	GCTCGTAGTT	TAGTCCTTGA	CATGACGCCC	CTCCAATTGC	TTTTCTAGTC	5220
CTTTGACAAT	CCGTGATTA	CGATACACGC	GATACAGCAA	GAGAAGGATG	ACCGCCATCG	5280
CTCCTAGTAA	TAACCACAAC	CAGAATTGCC	CACGCTCTCT	CACCGCTCGA	TTCCGCTCTG	5340
CAATTGGTGC	CGTATACGGA	ATCCGCTTCC	CACGTACCAA	CAGACGATGA	CTGTTAATCA	5400
TATACGGTGT	ACAAGTCAAC	AAGGTGCGAT	AATCTTCCCC	ATGTTGAATC	AAGACAGGCT	5460
CAAAGTCATT	CGGCTCCACC	GTCATATCT	GATCCACTTG	GTAGGCCAAC	ACCTGATCTA	5520
AAACGTGAAG	ATAAAGATA	TCCCCTTTTT	TCATCTTATC	CAATTGACTG	AACAATTCTG	5580
CCGTTGGCAA	TCCTCTGTGA	GCAGTGATCA	CTGTATGGGT	ATTTTCACCT	CCAACAGGCA	5640
GCGAAGCCCC	TTCTAACAGC	CCTGCCCCCT	TCTGAAGAAT	GTCCTCACTC	GTTCCGACAT	5700
ACATCGGAAT	TTCTTGATCA	ATCGCAGGAA	TTCCACATA	GCCAATCCGC	TCATGGACCT	5760
TTAGCATATT	GGCATATTCT	GAGACGCCTT	TCTTTTCTC	TTGCTCTGTA	AAAGGATCAA	5820
GAATTTGAGA	TGGTTTCAAG	GTCGCATTGA	AGGCTTGAGC	CAAGCGCCAA	CGCTCCTCAA	5880
GTTCTGCCTT	ATCCATCTGG	GAAACCGTCT	CATCAAACCT	TTAATAAACC	TCGTTTGACT	5940
CAATACGATA	ATAATAACGA	GACACCAATG	GATATATCGC	AACGGCGAAT	CCTACTAAGA	6000
AAATCAGAAG	AAGGATCAGC	GGATGTTTCT	TCTTTTTTGT	GCCTTTTTTT	CGTGAACGTC	6060
TACTGTTGTC	CATCCTCCAC	CTTCACTTCC	TTCTTGCTG	CTTTCAGCGC	CTTCAAAGCC	6120
TTTTCCGGTT	GTTTTTCTT	CTTGCGCAAG	CGTCGAATAA	TCCATAAAAG	AATCACAATC	6180
AAACCAACTG	CCACATAAAA	CAGGTAGCGA	TAGAGATGAC	TGAGTTTGTT	TGCTGCAATA	6240
AATTCTTCCT	CAACCTCTGC	TACGTACGGT	ATCCGATGCC	CCCGAACCAA	TAGACGATGG	6300
GTATTGATCA	TGTATGGCGT	ACAAGTCAGC	AAGGTCACAT	AATCATGACC	TGGTACAATC	6360

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AATAAATCAT CAAAGTTCGT CGGCTCAATC ACCTTTACTT GATCCACTTG ATAGGCCATC	6420
ACTTCCTTGA TATTGTGCAC ATAAAACTTA TCCCCAACTT TAAGTTTGGT CAAATCCGTA	6480
AACATCTTAG CTGTTGGCAA ACCTGTATGT GCCGTAATCA CCGCATGGGT CGAATTGCCT	6540
CCGATCGGCA GAGAAGTTCC CTCTAGATGC CCAGCCCCTT GCTGCAATAC CTCTTCAGCA	6600
GTACCAGCAT AAACCGGCAA ATCCACGTCA ATAACGGGGA TTTCCACATG CCCCATCCGC	6660
TCATGGATTT CTAACATACG TGCATACTCT GCTCGCCCTT TTTCTTTCAT TTCTTCCGAC	6720
CAAGGATCGC CACTCACTAC ATTATTCAAA GAGTCATTGA AGGCTTGTGC CAATTTCAAT	6780
CGTTCATCAA TGTGAGCCTC ATCCAACGTT GCTTTTTCCT TATCAAAGTC AGCAATTTGT	6840
TGATTTGATT CCACTCGATA ATACAAGCGA GACACCAGCG GATACGCCAT TACCGCCATT	6900
CCAATGAAAA ATACCACTCC TAATAGGAGA TTATTTTCGTT TTTGCTTTTT TGTTTTTACC	6960
ATTTTATCA GCATCCCTTT ATCTTCAAAC TTCAGGGTAT C	7001

(2) INFORMATION FOR SEQ ID NO: 89:

- (i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 10411 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 89:

GAGGGAGCTT AAGAAGTTAC CACCGTCTC TAGCGCCTTA TCCGCATCAA AGTTAAGGTT	60
GATATTTTAA AACTGTGCG CAGCTTGTGA TACGATGCTT TGTTTAAGGT CATTTAGGGT	120
TTTAGTGAAA TCTGCATTGC TGAGGATATC ACTCTTTGAG AGATTCAAGG CAAAATTGAT	180
GATGATATTG ATCTGGTTTC CTGTTATGAC CTGATCAAGT TTGTAATTTT TTAAGGTATC	240
TTCAACAATC TTGCGGATAT CTTCTTCTGT CAGATTTCCC TTACTTTCTT TAGCTTTGGC	300
GAGTCCTGAC TTGATATCAG CTAGGGCAAC GTTTAATTTA TTAGCATCAT AGCCTGATTT	360
GTCCTTGTTT TCAGCATTGA TATCTGACAA AGCTTTTAGC TCTTCTTGAG CCAAATCTTT	420
ATTAGCTTGT GGCACCTTGG CTCCATTAGC CTCTAGCGAA TAGTAAATCC CTGCTAAAGC	480
ACTTTCTCCT GTAACGGAA TAGGGGCTGC TACAGTGATT TTGGCATGTT CCATACCCAG	540
CGTTACTGCT GCGTTTCGGT ACATATCCTG AGTCACCTTA GTGATATTTT CTGGTGTTTC	600
AATCTTGACC TCAAGTGGCG ATTTGTCACC TAGCTTTTGA ATCTTGGCTG ATGAATACAA	660
CTGTAAGCTA GAGTCATTGG CCACATTCAT GATTTTAGAA TAAACATCAG GTGTCATGGT	720
CTTGAGTTCT TTGGTATCTG TTGAGGCATT GTAGCCAGT TTTTAAAGAG TTTGATTTT	780

TTGGTCTTCA GATAGGGAGG AACCTAGGAC ATATTCAGGT TGGACATAGG TTTCATCGAT	840
AACTTTTGA ACATCTGTTG CTGCATGGAC GCTATTCATA GCTGTACTG CCCACAAGAT	900
CGCAGCGCTA GTCAGAAAGA GTTCTTTCT CATAGGGAAT TTCCTCCTT ACTTCTTTAG	960
AGTAATATAT CTATCTTAA GAAACTTAT AACAAAAACA CCTGGTCTAG CCAGATGTTG	1020
AAAAGAGAGT GAAACATTTG ATGATGTAAA GGTAAAGTCG TACCTGTCTA GAATAATAAT	1080
AGTTTCCTCC ATTTACATAG AGTTCAGCAC CGTGAAAAAT GGAAATGGGG TGAATATAAC	1140
TATAAGTCTT TCCAGTCCTA TTACCAAGCA AGGGGGCAAC AGTCTCACGA GAGTACTGTT	1200
TGGCTAGAGC CAGGGTATTT TCCTTGCCAT TTTGGGCGAT AAAATCGATA TAGGCAGGTC	1260
CAAAATTATA GGCTTGAACA GCTGTCCAGA TATCTACCCC CTTCTTCTGC GCCAGATAGA	1320
GATTGCCTGT CAGAGTTTGA ATGCCTTGCC GAATGCTAGA GGCATTATCA TTGATGGTGT	1380
TGGTGGAACC ACTTGCAGAC TCACTAGACT GCATAACATC GCCTTCTTTT CCTTTTGT	1440
CAGTATAAAT CATAGCAAGC ACAAGCTCTT CGTTTGCTGG GGTGTCTTGT TCACTCAATA	1500
TTTCTCGCAC CATGGGTGA TAGGTTCATGA CTTGTTTGAC ATCTTGATGA ACGCGTAAG	1560
CTTTATAGCC AGCAAAAAGG AAGACTGCTA GTACAAGCAC TCTTCGAATT CGTTTAAACA	1620
TTATTTACTT TGGATATCCT CGATATTTT GATTAAGATA GAGTAGGTTT CATTTTCGTT	1680
TTGGATAAAC TCAACAGACT CGGCGTCTTG ATAGACGTTA TTGGGAACGA TGAGCTCAAT	1740
TCCATTTGAT AAGGAGAGTT TTTGGTTTTC AAATTTCTTT AATTGGCGAC TGGCATCAAT	1800
TTCATCAAAT TGAACAGGTT CTGGTACGGC TTCTTTGACT TGGTCAATAA AGCTCAAACG	1860
AGCCGTCAGA TTGTTGTCAA AAAGGTCATT AGCCAATTTT TCAGGTGACA ATTCATTGCT	1920
TTCTTCTAGG TTGTTGAAAA TAGCTGATTT GACCTTGGAT TGAATTGAA AATCATCTGT	1980
GTAAAAGAT TTAGCAATTC TCTGGGCTGT TTTTCCAGT TCCTTGATAG ATTTTCTAGG	2040
AGAAATCTTA GGAGCGACAG CAAGAAGATT ATCTGAAAA TAGTTCAAAA AAGTCCCGTT	2100
GTAATTGATT CGTTTTTCAA TCAGGTGATA CTTGCTACTC TGAAGATTGA CCACCAAGGC	2160
CTCATCAGCT CCTGTTCCAA ATCCAGGCAG GTTATTCTGA GTTAGCTTGA TTGGATTATC	2220
AACTTCTCCT CCGAGGTGGG TCAAGGTCTC CCGCAGGGCA ATTCGCAAGA AAGCGAAATG	2280
TTCTACACCT TCTTTAGAAA ATGTCACAAA AATCAAGTCA TTGGTCTTGA GATTTTCAGA	2340
AATGCTAAAC TCCTCTTTCC AGAGATTAGC CAGCGTACT GATGTCTCCA ACAAATCGTC	2400
TGTAATATGA TTGAAGAAGG GATTTTCTTC TTCGAAAATC CCAGTCTTGG CTTTATCTGA	2460
ATACACATGT TCAATTTTTT TACGCAGGTA TTCTTCGATT TTTGGAGTAA TATTGAGAAA	2520

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CTTATCTGCT	AAGAACAGTT	CGGTATCATC	CGGACTGAAC	TGGTGAATAA	TGGCTTTCTT	2580
AATATAAATG	TCCATAAAAG	TTTGTAGTCCT	CGTATAATGG	GAAGGCATCT	GTCAATTCTT	2640
TGACTGCACT	TCTCACTTCT	TCTAATACAG	CCTCATTTTC	TGAATTCTTA	AGGGTTTTAA	2700
TGATGAGTTC	AGCCACTTTG	CGACTTTCTT	CTTCACCAAA	TCCACGTGCA	GTAATGGCTG	2760
CTGCTCCGAT	ACGAATCCCA	CTTGCTTTGA	ATGGTGACAA	GCTTTCTGTA	GGGATTGAGT	2820
TTTTATTTAA	GGTAATATTG	ACTTCATCCA	ACAAGTTTTG	AGCAACTTTG	CCGTTTTCTA	2880
CAACTTTAGT	CACATCAACA	AGGAAGAGAT	GGTTTTTCAGT	TCCACCTGAA	ATAATACGGA	2940
AATCAGGGTC	TTGCAAGAAG	ACATCTGCCA	TAGCCTTGCT	GTTCTTAATT	ACATTGGCAG	3000
CATATTCCTT	GAAGGCTGGA	TCCAAAACCT	CTTTGAAGGA	AACTGCCTTA	GCCGCCACAA	3060
CATGCTCTAA	AGGACCGCCC	TGAATACCTG	GGAAAATAGC	TGAATTGATT	TTTTTAGCAA	3120
GTTCTTCGTC	ATTGGTCAAA	ATCAAACCAC	CACGAGGTCC	ACGAAGGGTT	TTGTGGGTCG	3180
TTGTTGTTGT	GATATGAGCG	TATGGAACCTG	GGCTTGGATG	AAGGCCAGCC	GCAACCAAGC	3240
CAGCGATATG	GGCCATGTCC	ACCATGAGCT	TCCGACCGAC	AGCATCTGCG	ATTTACCGGA	3300
ATTTTGAAAA	ATCGATAATT	TGAGAATAGG	CTGAAGCACC	AGCTACAATC	AGTTTTGGTT	3360
TTACTTCTTG	GGCTTGTTTC	AAGATAGCAT	CAAAGTCTAA	GAGTTCCGTT	TTAGGATCAA	3420
CACTATAAGA	AACAAAGTTG	TAGGTTTGAC	CAGAGAAGCT	AACAGGAGCC	CCATGAGTCA	3480
AATGACCACC	TGATGCCAAA	TCCATTCCCA	TAACCGTATC	ACCTGGCTCA	ATCAAGGACA	3540
TGTAAGCCGC	ACAGTTAGCT	TGGCTTCCTG	AATGTGGTTG	AACATTGGCA	AATTTAGCAC	3600
CGAAAATTTT	TTTTGCGCGT	TCAATAGCAA	GAGTCTCTAC	AACGTCTACT	ACATCAGTTC	3660
CACCATAATA	ACGGCGTCCT	GGGTAACCCT	CGGCATATTT	ATTTGTCAAG	ATAGACCCTT	3720
GAGCTGCCAT	AACAGCCTTG	GAAACTACGT	TTCCGAAGC	AATTAACCTG	ATATTATTTT	3780
GTTGGCGTTC	TTCTTCTTTG	GCAATAGCAT	TCCAGAGATC	AGCATCATAT	GCTTTAAAAT	3840
CATCTTTGTC	AAAAATCATA	GGTCTTCTCC	TTTATTGTGT	GACTAGTCCA	TTAGTTTGAT	3900
TTTACAATAA	GAAAATCAAA	CTAACAGATG	CGAATAAACC	GTTTCTGCAT	TTTATCACAA	3960
GTATAGCCAA	CTTTTTTCATA	AAATGCATGA	GCACCCAGAC	GATGATTGGC	AGAATTTAAG	4020
CGGATAAACC	CATAACCACA	TCTTTTTGCT	TCTTCTTCCA	ACCTTTGTAG	TAAACTTTTA	4080
CCAATACCTT	GACCTTGCGC	TTGAGGTGAA	ACTGCTAAAG	CTAAGATATT	AAATCCTGCT	4140
TTGGAATAGA	GTGATTGCTA	AACTTCAGCG	TGGACATATC	CAAGTAAGAC	ATGATTAGCT	4200
GCATCCTCAT	AGCCAAGTAG	GAAATGATGG	GAATCCTGAG	ACAGTCTAGC	TAGTTGGCTA	4260
GCCGTTTCCT	CTGGACTAAA	AGTATAACCC	AAAGCCTCTT	GTTTGATGTC	ACATATAGCT	4320

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TTCACATCAG	TTTCTCTTAA	ATCTCTTAGC	ATCTCATTC	TCCTCAAAAG	AAATCTTTGG	4380
CAACCGAGCA	AGAATATCTT	CTCGCTTAAT	GGCCCCTTGA	CGTAAGATTT	TCACCTTGTC	4440
TCCCGACAAA	TTCAAAATAG	TTGAATCCTG	TCCAGTTAGA	AAAGCATCGT	CTTCCAGACC	4500
CAGAACCTCT	TGGTCAAAAT	CCTCTAGAAT	TTGATTAAAG	GTCACTCCAC	TCGCCTGACC	4560
TGAGATATTG	GCAGACGGCC	CAATCAAGGG	ACCTGTCTCT	CGAATCAAAT	CAAGGGTAAT	4620
GGGATGACTA	GGCATCCGAA	ATCCAACAGT	TGCAAGGCCA	GAATTGACCC	AATAGGGAAC	4680
TCGGTCATTA	GCTTCGAGAA	TAATGGTCAA	GGGACCTGGT	AAAAAGATCT	CTACAAGTTT	4740
TTGAAGATAA	GTTGGCTGAT	TCTTTGAAAA	GTACAAGATG	TCCTCTAAAG	AGGCAACATT	4800
GAGATTGAGC	GCCTTGCTCT	TACGTCGACG	TTTAAGCTGG	TAAACATGGT	CAACTGCTTT	4860
TTCTGTCTAGC	GCCTTAGCAA	AGAGACCGTA	AACTGTCTCT	GTAGGCAAAA	CGACAGCTCC	4920
ACCATTTTCC	AACTCTTGTC	TAATCCTGTC	CATCATCAAC	GACAACCATC	CTATCTTGAC	4980
CAAATTGGTC	CTTGAGTGTT	CGTACTCGCT	TTTCAGGAAG	ATGTTTCCTA	AAAAGTTCAG	5040
GAACACTTTG	ACCTTGCTTG	TATCCAATTT	CAAGGTAAAT	CTTACCACCA	TCTTTGAGAT	5100
AGTCTTTTGC	ATCTTCCGCA	ATTCTACGGT	AAATAGCTAG	GCCATCCTCA	TCTGCAAAGA	5160
GAGCTAGATG	AGGCTCCGAA	TACAAGACAT	TCAAGCCTAC	CTCTGACTCA	TCTTCACGAG	5220
AGATATAGGG	TGGATTGGAA	ACAATTATAT	CATATTTTTC	AGAAATTTCT	GTAAAACACT	5280
CAGATTTTTT	TAAAAATATT	TGAAGATTTT	GATTTTTAGC	ATTTTCGCTA	GCTACATCTA	5340
AAGCATCTTG	GGAAATATCT	GCTGCCGTCA	CTGACCAATC	TGGTCTGTTT	TTTGCTAGAG	5400
CGAGAGCAAT	AGCTCCACTA	CCTGTTCCGA	TATCTAGGAC	CATAAGATTT	TTCACAGGAT	5460
TTTCAGCCAG	GATAAGCTCC	ACCAACTCCT	CTGTTTCTGG	ACGAGGAATC	AAAACCCGTT	5520
CATCCACCTT	TAAATGCATT	CCATAAAAAT	CTGCCTGTCC	AATGATGTAC	TGAGCTGGCT	5580
TGTGAGCTGC	TAGTTGCTGG	TAAATATCTT	CTACAAATTG	TTTTTCTTCC	TCTGTTGTCA	5640
CCTCCTGCTG	GAGGGCAAAA	ATAAAGTCTG	TAAAAGATAG	ATTTTTCAGA	CTACGATAGA	5700
CAAAAGAGAG	GCTTTCCGCT	TCCTCTCCTT	GTCTTATCAA	CTCTTCTTCA	AAATTTGAAA	5760
ATAATTGAGC	TAATTTCAAT	ATTTGTTTAA	TTCTTCTAGT	TTTTGTGTTT	GGTCATAAAG	5820
CACCAAGGCA	TCCACAACCT	CGTCCAATTT	ACCAGACAAA	ATCGTATCTA	GTTTTTGGAG	5880
GGTCAAGCCG	ATACGGTGGT	CTGTGACACG	GTTTTGTGGG	AAGTTATAAG	TTCGGATCCG	5940
TTCTGAACGG	TCACCAGTAC	CGATTGTCGA	CTTACGCTCA	GCGTCCTGCT	CATCTTGAGC	6000
AATCTGAGCA	AAGTGGTCAG	CAACACGGGC	ACGGATGATT	TTCATGGCCT	TCTCACGGTT	6060

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CTTCTGCTGG	GTACGTTCTT	CCTGCATCTC	AACCTTGATA	TTGCTTGGCA	AGTGAACGAT	6120
ACGAACGGCA	GTCGCAACCT	TATTGACGTT	CTGTCCACCA	GCACCAGAGG	CGTGATAGAT	6180
GTCGACACGA	AGGTCTTTTG	GATCAATGTC	GTATTCAACC	TCTTCAACTT	CTGGCATAAC	6240
AAGAACTGTC	GCTGTCGAAG	TATGAACACG	GCCTTGGCTT	TCTGTCACAG	GAACACGTTG	6300
CACACGGTGG	GCACCTGATT	CATACTTAAG	CTTAGAGTAT	ACAGACTGAC	CTGAAACCAT	6360
AGCAACCACT	TCTTTAAAAAC	CACCGACACC	ATTCATAGAG	GCTTCCATGA	CTTCAAAGCG	6420
CCAACCTTGG	GCTTCCGCAT	ACTTTTGGTA	CATAGTTAGC	AAATCTCCAG	CGAAAAGTGC	6480
CGCTTCGTCT	CCACCAGCTG	CTCCACGGAT	TTCAAGGATG	ATATTCTTGT	CATCGTTTGG	6540
ATCCTTTGGA	AGGAGCAAAA	TTTTCAGTTT	TTCTTCATAT	TCTTCTTTTT	CAGCCTTGGC	6600
ATCTTTGAGT	TCTTGCTTGG	CCAATTCTTC	CAAGTCCGCA	TCTCCGCCTG	ATTCCTTAAT	6660
CATCTCTTCG	GCATCGACGA	TATTTTGAAG	GACTTGTTTA	TACTCACGGT	AGGCTATTAC	6720
GGTGTACCGA	TTGGAAGCTT	CTTCTTTTGA	AAGCTCCATA	AAACGCTTGG	TGTCTGAAAC	6780
GACATCAGGG	TCACTCAGCA	ATTCTCCTAA	TTCTTCATAA	CGGTCTTCTA	CAACTGTAG	6840
TTGATCATAG	ATGTTCAATTT	TTTCTCCTTA	TTTCTCAATT	GTTAAATCAT	AGATTGCTAC	6900
TACTTCATTC	TCGGATATTT	CCCCAGTTTC	TTTAAATCCA	TAACTGAGGT	AACAAAATCT	6960
TGCCTGTTCA	TTTCTGGTTT	CATATGACAA	CCAAAGTTTA	TTGCTTAAAC	CTGCTGGCGC	7020
TGTTGGAACA	TAGTCTAGTA	CTTTATCCAT	AATTGGTTTA	AAATATCCTT	GATTTTGAAA	7080
ATTCTTATCA	ATCATAAAAC	GAAATAGTAA	ATAATTTCCA	CTACTAATTC	CGATCTTTTT	7140
ATCATAAGCT	ATCATCACAA	AACCTATAAT	TGCATCATTA	TCATAAACTG	CCAATGGAGC	7200
TACAAAATCT	CCATTTTATG	TGTAGACGTA	TGCTTCAGCT	AAACTAATTG	CGTTGGTTGC	7260
AATGAATTGT	TTTGTATATT	CCTTGACATC	CAAATTTAAA	ACATCAAAAT	AATTTTCCAT	7320
TGTAACATCT	CTTAGTTCAA	TTGTCATAGT	TTTGCTCCTT	GTTAGAGGTT	ATCATTGGCG	7380
CAAAATAATG	TTTACGGCAA	ACTGAGATAT	AGGTTTCGTT	ACCACCAATC	TGGATCTGTT	7440
CTCCATCGTA	AACGGGCAGT	CCATCCTGTG	TTGCAACAC	CATGGTCGCC	TTTTTCTTGC	7500
AATACTGACA	GATGGTCTTG	ATTTCTGCAA	TCTTGTCTGC	TAAAAGCAAG	AGATATTTGG	7560
AACCTTCGAA	CAATTCATTG	CGAAAGTCAT	TTTTCAAGCC	AAAAGCCATG	ACGGGTATGT	7620
CTAACTCGTC	CACAACACGA	GCTAGGTCGT	AAACATGGTG	GCGTTTGAGA	AACTGGGCTT	7680
CATCGACCAA	AACACAGTAA	GGTTTTTCTG	GTAGGTCTCG	GATATAGCCA	AAGATATCCG	7740
TTGTTTCCTC	AATCGCAAAG	GCAGGGCGTT	TCATGCCAAT	TCGACTCGAC	ACATAGCCAA	7800
CGCCGTCACG	CGTATCCAGA	GCCGAGGTCA	TAATCACAAC	ACCTTTTCCT	TGCTCCTCGT	7860

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AGTTATAGGC	CACTTTGAGA	ATCTCAATCG	TTTTACCAGA	GTTTCATGGTC	CCATAACGAT	7920
AGTACAACTG	TGCCATGTTT	CTTGCTTCAC	GTCCATTTCT	AAATTTTTCG	TACATTCTAG	7980
TATATCATAA	TTTTCTTAAG	CTTTAAACGG	CAAAATGTGG	TAAAATAGAA	GAAATCAAAA	8040
ACTAGTGGAG	GAAGCTATTA	TGCCATTTGT	ACGCATCGAT	TTATTTGAAG	GACGCACGCT	8100
CGAGCAAAAG	AAAGCTCTTG	CTAAGGAAGT	AACGGAAGCA	GTTGTCCGCA	ACACTGGAGC	8160
CCCTCAATCT	GCTGTCCATG	TCATCATCAA	CGACATGCCA	GAAGGAACTT	ACTTCCCACA	8220
AGGGGAAATG	CGTACTAAAT	AAGCTAGCTT	AAGCAGAATT	GCTTAGGCTT	TTTCAATCTC	8280
CAAGTAGCAT	TCATTGAAGA	AATATCCTAA	ATTTGTTACA	ATTTGAAAAG	AAACTTGGAG	8340
AATTTCCAAG	AAAAGAGCTA	TTAATTAAAG	GAAACATTAT	GATTACACGT	GAATTTGATA	8400
CCATCGCTGC	TATCTCTACT	CCACTAGGTG	AAGGGGCTAT	TGGTATTGTC	CGCCTGAGCG	8460
GAACAGACAG	TTTTGCTATT	GCGCAAAAGA	TTTTTAAAGG	AAAAGACTTG	AACAAGGTTG	8520
CCAGCCACAC	TCTCAACTAC	GGTCACATTA	TTGATCCTCT	GACTGGTAAA	GTCATGGACG	8580
AGGTTATGGT	TGGGGCTATG	AAGTCTCCAA	AGACCTTCAC	TCGTGAGGAT	ATTATCGAGA	8640
TTAACACCCA	CGGTGGGATT	GCGGTGACCA	ATGAAATTCT	CCAGCTAGCT	ATTCGTGAAG	8700
GGGCTCGGTT	GGCAGAACCT	GGTGAATTTA	CCAAACGTGC	TTTTTTAAAC	GGTCGCGTAG	8760
ACTTGACACA	GGCAGAGGCT	GTGATGGATA	TCATCCGTGC	CAAGACTGAC	AAGGCCATGA	8820
ACATTGCGGT	CAAACAATTA	GACGGCTCCC	TTTCTGACCT	CATTAACAAT	ACCCGTCAAG	8880
AAATCCTCAA	TACACTTGCC	CAAGTTGAGG	TCAATATCGA	CTATCCTGAG	TATGACGATG	8940
TTGAGGAAGC	CACTACTGCT	GTTGTCCGAG	AGAAGACAAT	GGAGTTTGAG	CAATTACTAA	9000
CCAAACTCCT	TAGGACAGCA	CGTCGTGGTA	AAATCCTTCG	TGAAGGAATT	TCAACGGCTA	9060
TCATTGGACG	TCCCAACGTT	GGGAAATCAA	GCCTTCTCAA	CAACCTCTTG	CGTGAGGACA	9120
AGGCTATCGT	AACAGATATC	GCTGGGACAA	CACGAGATGT	CATCGAAGAG	TACGTCAACA	9180
TCAATGGTGT	ACCTCTCAAA	TTGATTGATA	CAGCCGGTAT	TCGTGAAACG	GATGATATCG	9240
TTGAACAAAT	TGGAGTTGAG	CGTTCGAAAA	AAGCTCTTAA	GGAAGCTGAC	CTAGTTCTGC	9300
TAGTACTAAA	CGCTAGTGAA	CCACTAACCG	CCCAAGATCG	CCAACCTCCTA	GAAATCAGTC	9360
AGGAGACTAA	TCGCATTATT	CTTCTTAACA	AAACTGACCT	GCCTGAAACG	ATTGAAACTT	9420
CGGAACTACC	TGAAGATGTC	ATCCGCATTT	CAGTTCTTAA	AAATCAAAAC	ATCGATAAAA	9480
TCGAAGAGAG	AATCAACAAC	CTCTTCTTTG	AAAATGCTGG	TTTGGTTGAG	CAAGATGCTA	9540
CCTACTTGTC	AAACGCCCCG	CACATTTCTT	TGATTGAGAA	GGCCGTTGAA	AGCCTACAAG	9600

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CTGTTAACCA AGGTCTTGAA CTAGGGATGC CAGTTGACTT GCTTCAAGTT GACTTGACCC	9660
GTACTTGGGA AATTCTAGGA GAAATCACTG GAGATGCTGC TCCAGATGAA CTCATCACCC	9720
AACTCTTTAG CCAATTCTGT TTAGGAAAAT AAGAAAAATC CATGATCCTT CATTCGGTCA	9780
TGGATTTTAG GTTCTATAAT ATTTGTAGTG GGTAAATCCA CTATAGATAT TATGGAGCCT	9840
ATTTTATTGT AGAAAAAAG TCCCATATGA CCTATAATGA AAAGCGACAA AACAACTCAT	9900
TAGAAAGAAT CATATGGAAC AATTACATTT TATCACAAAA TTAGTAGACA TTAAAGACCC	9960
TAATATCCAG ATTTTAGACA TCATCAATAA GGATACACAC AAGGAAATCA TCGCCAAACT	10020
GGACTACGAC GCCCATCTT GCCCTGAGTG CGGAAACCAA TTGAAGAAAT ATGACTTTCA	10080
AAAAACCTTC TAAAATTCCT TATCTTGAAA CGACTGGTAT GCCCACTAGA ATTCTCCTTA	10140
GAAAGCGTCG ATTCAAGTGC TATCACTGTT CAAAAATGAT GGTCGCTGAA ACTTCTATCG	10200
TCAAGAAGAA TCACCAAATC CCTCGTATCA TCAACCAAAA GATTGCTCAA AAGTTAATTG	10260
AAAAGATTTC TATGACTGAT ATTGCCCATC AGCTTTCCAT CTCAACTTCA ACTGTTATTC	10320
GTAAGCTCAA TGACTTTCAC TTAAACATG ATTTTCTTG TCTTCCTGAG ATTATGTCTT	10380
GGGATGAGTA TGCTTTTACA AAAGGGAAGA T	10411

(2) INFORMATION FOR SEQ ID NO: 90:

- (i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 2393 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 90:

GTTTTGGGTT CTGGAAATTA TCAGATGGTT GGAAAAGCCG TCCACATCAA GATAGTGTTT	60
GGAGATTTAA GTTTAAATTG AAGAACTAA CACAGAGGAA ATGGAGTATA GACCTAACAA	120
GACGTATTGA GCAACTGAAT TTGTCTATTC GAGGATGGAT AAATATTGC TCATTGGGAA	180
ATATGAAAAG TATAGTCGCC AGCATAGATG AGCGCTTGCG TACTCGCCTA CGAGTGATTA	240
TCTGGAAGCA ATGGAAGAAG AAATCGAGAC GATTATGGGG ATTGCTTAAG TTAGGAGTTC	300
CTAAATGGAT AGCAGATAAG GTATCTGGCT GGGGCGACCA TTATCAATTA GTAGCTCAGA	360
AGTCGGTACT TAAACGTGCT ATATCAAAAC CAGTCCTGGA AAAACGTGGA CTGGTTTCGT	420
GTTTGGATTA TTACCTTGAA CGACATGCGT TAAAAGTTAG TTGAACCGCC GTATGCCAAA	480
CGGCACGTAC GGTGGTGTGA GAGGGGCTAG AGATTATCCC CTACTCGATT AACTCCCCTG	540
AAATTTATTT TAATTATGCA AATTCACGT ATTTTGTATG CTGAGACGAC GATCCTGGGA	600

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ACTTTTCAGA TATTTTTTTG ACTATCTAAA TCTATCATTA GAAAAGCTTA GAGCGCCAAA	660
GGATTTGAGC GTTTTTCTGA TTTTAAAGAC TTTTCCAGT CTCTTTTTCG ATTGAAGATG	720
TAATTATTCT ACTAACTAAC TAACTTCTTA GTACTAGCCA ACAACGATAA TCATAATTCC	780
TCCTAAAATT AGGAATAATA AAGGCAATAG TTTTGTGTTT TTCATGTAAA AAACCTCACT	840
TTTGTGTTCT GCTATTTTAT GCTAAAATAT TAAAAATCAA ATTTAATTCC AAAGTTTGTA	900
ACTAAAGGGG GAGCGCTACA TGTCTAATTC ATTTGTCAAG TTGTTAGTCT CTCAATTATT	960
TGCAAATTTA GCAGATATTT TCTTTAGAGT AACAATCATT GCTAACATAT ACATTATTTT	1020
AAAATCAGTA ATTGCCACAT CACTAGTTCC TATCTTAATA GGAATATCCT CTTTGTGTC	1080
GAGTCTTTTA GTTCCGTTGG TTAATAAAAG GTTAGCGCTA AATAGGGTTT TATCTTTATC	1140
TCAATTTGGA AAGACTATAT TATTGGCGAT ACTGGTAGGA ATGTTTACCG TAATGCAATC	1200
CGTAGCGCCT TTGGTGACCT ATCTATTTGT TGTGCAATT TCCATACTAG ATGGTTTTC	1260
AGCACCCGTT TCCTATGCTA TTGTGCCACG CTATGCGACC GATTTGGGTA AGGCTAATTC	1320
AGCCTTATCA ATGACTGGTG AAGCTGTTCA ATTGATAGGT TGGGGATTAG GTGGACTCTT	1380
GTTTGCAACA ATTGGTCTGT TACCTACCAC GTGTATCAAT TTAGTCTTGT ATATCATTTT	1440
TAGCTTTCTG ATGTTATTTT TTCCTAACGC TGAAGTGGAG GTGTTAGAGT CAGAACTAA	1500
TCTTGAAATT TTGCTCAAAG GTTGGAAGTT AGTTGCTAGA AATCCTAGAT TAAGACTTTT	1560
TGTATCAGCA AATTTATTGG AAATTTTTTC AAATACGATT TGGGTTTCTT CCATTATACT	1620
TGTTTTTGTA ACGGAGTTAT TAAATAAAAC GGAAAGTTAC TGGGGATATT CTAATACACC	1680
ATACTCTATT GGTATTATAA TTAGTGGCTT AATTGCTTTT AGGCTATCTG AAAAGTTCCT	1740
TGCTGCTAAA TGGGAACCCC AATTATTCAC CCCAAATCTA AAAACCATCC AGAATCCTTG	1800
CCTTAGCTTA GATCCTGGAT GGTTCCTTTT TTCACCCAAT GGGTGTGTTT TACTAGACAA	1860
AAAAGAGTTT CCCCTTTATG GTATAAGTGT AGAAAAAAC ACAAAAAGAA AGGAACTCA	1920
CATGAACAGT TTACCAAATC ATCACTTCCA AAACAAGTCT TTTTACCAAC TATCTTTTGA	1980
TGGAGGTCAT TTAACCCAGT ATGGTGGTCT TATCTTTTTT CAGGAACTTT TTTCCAGTT	2040
GAAACTAAAA GAGCGGATTT CTAAGTATTT AGTAACGAAT GACCAACGCC GCTACTGTCC	2100
TTATTCGGAT TCAGATATCC TTGTCCAGTT CCTCTTTCAA CTGTTAACAG GTTATGGAAC	2160
GGACTATGCT TGTAAGAAT TGTCAGCTGA TGCCTACTTT CCAAAATTGT TGGAAGGAGG	2220
GCAGCTTGCT TCACAGCCAA CCTATCCCG TTTTCTTTCC AGAACTGACG AGGAAACAGT	2280
CCATAGTTTG CGATGCCTCA ACCTTGAATT GGTGCAATTC TTTTACAGT TTCACCAGCT	2340

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AAACCAACTC ATTGTAGATA ACGATTCTAC CCATTTTACCA ACTTATGGCA AGC 2393

(2) INFORMATION FOR SEQ ID NO: 91:

- (i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 4762 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 91:

TTTGTATCTT TTTAGGTCTC TTTCAATCCA AACCCTTTAA ACTATACGTC ATTTCCGGTTC	60
CTGCAAGTCT TGTGGTAATT TTAGGTTTGA TTTTACTTTT CTTTTCACAA GAGCCTCTGC	120
ACGCTTCTTA TTTGATGGTC GTCTTCCCTG TTTTCCTACT TTTATTGGTA ACCAATATTA	180
AGAGTCAACA GAGGGGGCGT AGTGCTAGAA GAAGCCGAAG AGAAACGCCA TTATGCCTAT	240
GGAGTCGTTT CTTCAAAGGA AATCTATATC TGCTAGTTT TGGGTTTGTC TATCTTTTGT	300
CTGTTCCCTT TTTGATGAAG TTTGTCCTT ATCCAGTACC TTATCAAGAA CGTAATCGTC	360
TTGCTGATTT GGTAAAAGAG GAGACAAATA CGGAAGATGC TATCTCATGC ATGGGATGAT	420
ACTGCGACTC TTTATCGTAA GAGTGAGCGC TTGTCCCATC GCGGATTTTG TCCCCGTTGC	480
ACTATACAGC AACTGAGGAA AATCGTAATA AGTTACTTAA TGACTTGAAA GAAAAACAAC	540
CTAAGGTGAT TGTGGTAAAT GATAAGGTGG TAGTCTGGTC TGAAGTGGAA AACTCTTAA	600
AAGAAAATTA CCAACAAGTA AAGACTGATT ACTCAGAGTT TAAAGTCTAT AAAATTAAAT	660
AACCAAATCA ATATCTTGTG TATTTTAAAA AATTTTAGGA TTTTAAACAC AAGATATTGA	720
TTTTTCTTTT TAGAGTGGTA TAATACTTTT TAGAAAGAAC ATTTTAGAAA AGAGCATGCA	780
TATGATTGCA CTAGAAGAAA AAATTACAAT TTTGCCAACT CTCTTCGTCG AGAAACGAGA	840
TGGGAGACGT GTTGTATTTG ATGTGGACAA GATTGACAAG GCTCTCCACA AGGCGGCTGA	900
CAAGGTTATG GATGTGACAC CCCTGGTTGA AAAATGCCTC AATGATCTGA CTGAGCGAAT	960
TATTACAGAA ATTCATAGTC GCTTTCACCA GGAATTAAG ATTTACGAAA TTCAAAATAT	1020
CGTAGAACAT GAACTCCTTG AAGCCAAAGA ATATGCGCTG GCTCAGGAGT ATATTACTTA	1080
TCGGACACAG AGGGATTTTG AGCGCTCAAA AGCGACGGAT ATCAACTTTA GTATTCATAA	1140
ACTTCTCAAC AAAGACCAGA CAGTTGTCAA TGAAAACGCT AATAAAGACA GTGATGTCTT	1200
TAACACTCAG CGTGATTTGA CAGCAGGGAT TGTTGGGAAA TCAATCGGAC TGCAAATGCT	1260
TCCTAAGCAC GTAGCCAATG CCCACCAAAA GGGGGATATC CACTATCACG ATTTGGACTA	1320
CAGTCCCTAT ACCCCTATGA CCAACTGCTG TTTGATTGAT TTTAAGGGTA TGTGGAAAA	1380

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TGGTTTAAAG ATTGGAAATG CAGAGGTAGA GAGTCCCAAG TCTATCCAGA CTGCGACAGC	1440
ACAGATTCTT CAAATCATTG CCAACGTTGC TTCTAGCCAG TACGGTGGCT GTTCAGCTGA	1500
CCGTATCGAT GAAATTTTGG CGCCTTATGC AGAGAAGAAT TATCAAAAAC ATCTCAAAGA	1560
TGCAGAAGAG TGGGTATTGC CTGAAAAACA GGAAGATTAC GCTTGGAAGA AAGCGCAAAA	1620
GGACATCTAC GATGCCATGC AATCTCTTGA GTATGAAATC AATACTCTCT TCACTTCAAA	1680
TGGACAAACA CCTTTTACTT CGTTAGGTTT TGGTCTGGGA ACCAGTCGTT TTGAACGAGA	1740
AATTCAAAA GCTATTTTAA ACATTCGCAT CAAGGGTCTT GGTTCAGAAC ACCGTACGGC	1800
TATCTTTCCT AAACCTATCT TTACGCTTAA AAGAGGCCTC AACTTAGAGG AAGGAACTCC	1860
CAACTATGAC ATCAAGCAGT TGGCTCTAGA GTGTGCAACC AAGCGGATGT ATCCAGACGT	1920
CTTGTCTTAT GATAAGATTG TTGATTTGAC AGGTTCTTTC AAGGTGCCTA TGGGCTGCCG	1980
TTCTTTCCTT CAAGGGTGGA AGGATGAAAA TGGTGTAGAA GTCAATTCAAG GTCGCATGAA	2040
TCTGGGTGTT GTGACGGTTA ATCTGCCTCG TATTGCTCTT GAGTCTGAAG GTGATATGAA	2100
TAAGTTCTGG GAAATCTTCA ACGAGCGAAT GAATATCGCA GAAGATGCTC TTGTTTACCG	2160
TGTCGAACGC ACTAAGAGG CGACACCAGC GAATGCTCCT ATTCTTTATC AGTACGGTGC	2220
TTTTGGCCAT CGTCTAGGTA AAGAAGAAAG TGTTGACCAG CTCTTTAAGA ATCGTCGTGC	2280
GACCGTTTCG CTGGGCTATA TCGGCTTGTA TGAAGTAGCG ACAGTTTCTT TTGGTAACAG	2340
CTGGGAAAGT AATCCAGATG CTAAGGAATT CACGCTAGAC ATCATTACAG ATATGAAACG	2400
CCGTGTAGAA GAGTGCTCAG ACCAATATGG CTACCATTTT TCTATCTACT CAACACCATC	2460
CGAAAGTCTG ACAGACCGTT TCTGCCGACT AGATATAGAC AAGTTTGGCT CTATTCCTGA	2520
TATCACAGAC AAGGAATACT ACACCAACTC TTTCCACTAC GATGTTGTA AAAATCCAAC	2580
ACCGTTTGAA AAATTGGACT TTGAGAAAGT CTATCCGGAA GCAGGTGCGT CAGGTGGTTT	2640
CATCCATTAT TGTGAGTATC CAGTCCTTCA GCAAAATCCA AAGGCCTTGG AAGCTGTCTG	2700
GGATTATGCT TATGACCGTG TAGGCTATCT AGGCACCAAT ACTCCGATTG ACCGTTGCTA	2760
CAAGTGTGAC TTTGAAGGGG ATTTTGAACC AACTGAGAGA GGGTTTGCTT GTCCAAACTG	2820
TGGCAATAGC GACCCTAAAA CAGTAGATGT GGTGAAACGA ACTTGTGGCT ACCTAGGTAA	2880
TCCTCAAGCA AGACCGATGG TCAACGGGCG TCACAAGGAA ATCGCTGCGC GTGTCAAACA	2940
TATGAATGGT TCAACGATTA AAATAGCTGG GCATCAAGTA ACAAATTAGA AAGAAATGAA	3000
ATGGGAAAAT ATCAACTAGA CGATAAGGGG CGGCACAAG TGACCCGTTA TCACGAGAAA	3060
CACTCTAAAG GTGGAGCTGG TAAGAAAGAA CGCTTGCTTA GCTTCAGAGA ACAATTTTAA	3120

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AACAAGAACA AGAAAAATA AAAGTGAGAG CCAGCTCTCG CTTTCTCAT AGTGGGAGGT	3180
AAGGATGGAA TTACGCAGAC CAAGATTAGC GGATAAGAAA GCTCTTTTAG ATATGATGAC	3240
AGAGTTTGAA AAATTTTCAGT CGCCTCACGA CGGCGGTTTC TGGGATACAG AGAACTTTGT	3300
GTATGAAGAC TGGTTAGAAA GCAATCAGGA ACAGGAAATG GGGATTAATC TGCCTGAAGG	3360
ATGGGTTTCT GCAATTCAGT TAGTGGCTTT TTCTGAGAAA GGTCAAGCAG TTGGATTTCT	3420
TAATCTCCGG TTGCGCCTCA GTAACCTTCT ACTAGAAGAA GGTGGCCACA TTGGCTACTC	3480
CATTCTGCCA TCTGAAAGAG GCAAGGGTTA TGCAAAAGAG ACTCTCCGTC AGGGCTTGCA	3540
AGTTGCTAAG GAAAAGAACA TCAAGAAAGC TCTGGTGACC TGTAGTGTGA ATAATCCTGC	3600
TAGCAGAGCA GTCATTCTAG CAAATGGTGG AATATTTGAG GATGCTCGCA ATGGAGTCGA	3660
GCGTTATPVG ATAGAGGTAG CGAATGAATA ATCCAAAACC ACAAGAATGG AAAAGCGAGG	3720
AACTTAGTCA AGGTCGTATC ATTGACTACA AGGCCTTTAA CTTTGTGGAC GGCGAAGGCG	3780
TGCGCAACTC TCTCTATGTA TCAGGCTGTA TGTTTCACTG CGAGGGATGT TATAATGTTG	3840
CGACTTGGTC TTTAATGCT GGCATTCCCT ATACAGCAGA ATTAGAAGAG CAGATTATGG	3900
CAGACCTTGC CCAACCTAT GTTCAAGGCT TGACTTTGCT GGGAGGGGAG CCTTTTCTCA	3960
ATACTGGGAT TCTCTTGCCA CTTGTTAAGC GGATTCCGAA GGAATTGCCA GACAAGGACA	4020
TCTGGTCTTG GACCGGCTAC ACTTGGGAAG AAATGATGTT GGAAACTCCA GATAAACTGG	4080
AATTCTTGTC ACTGATTGAC ATTCTTGTG ATGGAAGATA TGATCGAACT AAGAGAAATC	4140
TTATGCTCCA GTTTCGAGGT TCATCTAACC AACGAATTAT CGATGTGCAA AAATCGCTCA	4200
AAAGTGGGCA AGTAGTGATT TGGGACAAGC TCAATGACCG AAAAGAAAGC TATGAACAGG	4260
TGAAGAGAGA ATGAAGAAA AGGACTTAGT AGACCAACTA GTCTCAGAGA TCGAGACGGG	4320
GAAAGTCAGG ACACTGGGAA TATACGGTCA TGGAGCTTCA GGTAATCAA CCTTTGCACA	4380
GGAATTGTAC CAAGCTTTAG ATTCTACTAC AGTAAATTTG CTAGAGACAG ATCCTTATAT	4440
CACCTCAGGA CGCCATCTGG TAGTACCCAA GGACGCGCCG AATCAAAAGG TGACAGCCAG	4500
TCTGCCAGTG GCGCATGAAC TGGAGAGTTT GCAGAGAGAT ATCCTTGCTT GCAGGCGGGT	4560
ATGGATGTCT TGACAATTGA AGAACCTTGG AAGGCTAGTG AGGTCTTGTC TGGAGCCAAA	4620
CCAATTTTGA TTGTCGAAGG GATGTCTGTT GGCTTTCTAC CCAAGGAACT CTTTGAAAAA	4680
ACCATCTGTT TCTACACGGA TGAGGAGACC GAATTAAAGC GACGCCTTGC TAGAGATACG	4740
ACTGTGAGAA ATCGCGATGC GG	4762

(2) INFORMATION FOR SEQ ID NO: 92:

(i) SEQUENCE CHARACTERISTICS:

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(A) LENGTH: 3832 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 92:

GATGCAGGTT TCGACCCACA TATTCCAGAA AATTACTTTA AAGATGATGA TGTTAATCAG	60
GTACCTTGTC TTTGTTGGTC TTCATCTGCA GCCCTCTTTT TCAGTAATTG GGTAGACCAT	120
GCGGTCTATC AGGAGACGCC TTTTGATTGG AGAAAGATAG AAGATGATGC ATCTGCATAT	180
GGGTATTTAT AAGAGGAATT ATGACATATT TAGACGCTTT TAAATCAGGT ACCTTGGTTT	240
TACCGAGTGC CCTGCTCTTG CATTTTAAGG AACTCTTTCC TTCTAGCGAC GATTTTCTGG	300
TTTGGCAATT TTTCTATTG CAAAATACGA CAGGCTTAGA AGAAATGTCG CCAAGCCAGA	360
TTGCTGAAAG GATTGGCAAG GAAATTTCCG ATGTCAACCA GTCCATTTCT AATCTGACCG	420
AAAGGGGACT GCTCCAGTAT CGTACTATCG AATTAAATGG CGAAATTGAA TTGCTCTTTG	480
ATGCTAGTTT GGCCTTGGA CGTTTGGATG ACCTGTTTGG AGCAGTTCAT TCAAGTTCAG	540
ACCAGCTAAC ACCTCAAAAC CAGCTCAAGG ATTTGGTGA AACCTTCCAG CAGGAGTTGG	600
GACGATTGTT GACGCCTTTT GAGATTGAGG ATTTGACCAA GACACTAAAG GAAGATGGAA	660
CCAGTGCTGA CTTGATTAAG GAGGCTCTTC GTGAAGCTGT TTTGAATGGA AAACCAAAC	720
GGAAGTACAT TCAGGCGATT TTGAGAACT GCGCCATGA AGGAATCAAG AGTGTGGCTC	780
AAATTGAGGC CAAGAGAGCA GAAAGAGAAG CAAGCAATCC TCAGTTGACA CAGGTATCTG	840
CAGATTTTAT AAATGCCATG GATCTCTGGA AGGATTAATC CATGCAAGTA GGCTTGAAAT	900
CCGAGTAAGA TTTGCAAGCT GTGTATAATT GTGATAGAAT AAATAGAAAA TAAATTGAAA	960
AAAGAGGTAT GTGAAATGTC ACGTAAACCA TTTATCGCTG GTAACCTGGAA AATGAACAAA	1020
AATCCAGAAG AAGCTAAAGC ATTCGTTGAA GCAGTTGCAT CAAACTTCC TTCATCAGAT	1080
CTTGTTGAAG CAGGTATCGC TGCTCCAGCT CTTGATTGTA CAACTGTTCT TGCTGTTGCA	1140
AAAGGCTCAA ACCTTAAAGT TGCTGCTCAA AACTGCTACT TTGAAAATGC AGGTGCTTTC	1200
ACTGGTGAAA CTAGCCACA AGTTTGTAAA GAAATCGGTA CTGACTACGT TGTATCCGT	1260
CACTCAGAAC GCCGTGACTA CTTCCATGAA ACTGATGAAG ATATCAACAA AAAAGCAAAA	1320
GCAATCTTTG CGAACGGTAT GCTTCCAATC ATCTGTTGTG GTGAATCACT TGAACTTAC	1380
GAAGCTGGTA AAGCTGCTGA ATTCGTAGGT GCTCAAGTAT CTGCTGCATT GGCTGGATTG	1440
ACTGCTGAAC AAGTTGCTGC CTCAGTTATC GCTTATGAGC CAATCTGGGC TATCGGTACT	1500

720

GGTAAATCAG	CTTCACAAGA	CGATGCACAA	AAAATGTGTA	AAGTTGTTTCG	TGACGTTGTA	1560
GCTGCTGACT	TTGGTCAAGA	AGTCGCAGAC	AAAGTTCGTG	TTCAATACGG	TGTTTCTGTT	1620
AAACCTGAAA	ATGTTGCTTC	ATACATGGCT	TGCCCAGACG	TTGACGGTGC	CCTTGTAAGT	1680
GGTGCGTCAC	TTGAAGCTGA	AAGCTTCTTG	GCTTTGCTTG	ACTTTGTAAA	ATAATCAGTA	1740
AGTAGCAAAA	GCTAGGTGGA	ACAGCATTCA	GATGTCTGTT	ACATTTTTTA	TAGGAGAGAA	1800
AGATTGAAAA	CAAAAATTGG	ATTAGCAAGT	ATCTGTTTAC	TAGGCTTGGC	AACTAGTCAT	1860
GTGCTGCAA	ATGAACTGA	AGTAGCAAAA	ACTTCGCAGG	ATACAACGAC	AGCTTCAAGT	1920
AGTTCAGAGC	AAAATCAGTC	TTCTAATAAA	ACGCAAACGA	GCGCAGAAGT	ACAGACTAAT	1980
GCTGCTGCCC	ACTGGGATGG	GGATTATTAT	GTAAAGGATG	ATGGTTCTAA	AGCTCAAAGT	2040
GAATGGATTT	TTGACAACTA	CTATAAGGCT	TGGTTTTATA	TTAATTCAGA	TGGTCGTTAC	2100
TCGCAGAATG	AATGGCATGG	AAATTACTAC	CTGAAATCAG	GTGGATATAT	GGCCCCAAAC	2160
GAGTGGATCT	ATGACAGTAA	TTACAAGAGT	TGGTTTTATC	TCAAGTCAGA	TGGGGCTTAT	2220
GCTCATCAAG	AATGGCAATT	GATTGGAAAT	AAGTGGTACT	ACTTCAAGAA	GTGGGGTTAC	2280
ATGGCTAAAA	GCCAATGGCA	AGGAAGTTAT	TTCTTGAATG	GTCAAGGAGC	TATGATGCAA	2340
AATGAATGGC	TCTATGATCC	AGCCTATTCT	GCTTATTTTT	ATCTAAAATC	CGATGGAACT	2400
TATGCTAACC	AAGAGTGGCA	AAAAGTGGGC	GGCAAATGGT	ACTATTTCAA	GAAGTGGGGC	2460
TATATGGCTC	GGAATGAGTG	GCAAGGCAAC	TACTATTTGA	CTGGAAGTGG	TGCCATGGCG	2520
ACTGACGAAG	TGATTATGGA	TGGTACTCGC	TATATCTTTG	CGGCCTCTGG	TGAGCTCAAA	2580
GAAAAAAAAG	ATTTGAATGT	CGGCTGGGTT	CACAGAGATG	GTAAGCGCTA	TTTCTTTAAT	2640
AATAGAGAAG	AACAAGTGGG	AACCGAACAT	GCTAAGAAAG	TCATTGATAT	TAGTGAGCAC	2700
AATGGTCGTA	TCAATGATTG	GAAAAAGGTT	ATTGATGAGA	ACGAAGTGGG	TGGTGTCAAT	2760
GTTCGTCTAG	GTTATAGCGG	TAAAGAAGAC	AAGGAATTGG	CGCATAACAT	TAAGGAGTTA	2820
AACCGTCTGG	GAATTCCTTA	TGGTGTCTAT	CTCTATACCT	ATGCTGAAAA	TGAGACCGAT	2880
GCTGAGAGTG	ACGCTAAACA	GACCATTGAA	CTTATAAAGA	AATACAATAT	GAACCTGTCT	2940
TACCCATATCT	ATTATGATGT	TGAGAATTGG	GAATATGTAA	ATAAGAGCAA	GAGAGCTCCA	3000
AGTGATACAG	GCACTTGGGT	TAAAATCATC	AACAAGTACA	TGGACACGAT	GAAGCAGGCG	3060
GGTTATCAAA	ATGTGTATGT	CTATAGCTAT	CGTAGTTTAT	TACAGACGCG	TTTAAAACAC	3120
CCAGATATTT	TAAAACATGT	AAACTGGGTA	GCGGCCTATA	CGAATGCTTT	AGAATGGGAA	3180
AACCCTCATT	ATTCAGGAAA	AAAAGGTTGG	CAATATACCT	CTTCTGAATA	CATGAAAGGA	3240
ATCCAAGGGC	GCGTAGATGT	CAGCGTTTGG	TATTAAGCGA	TGATTTGAAA	GAGGGATGTG	3300

721

ATAGTAGCAC CCTCTTTTTC TTTGTTTTAT GATAGTTCAT CCTCGAGTAA ATTCAAGTTC	3360
TTGCTCGGAA ATGAAGCTTA TATAGTAGAT TGAATATAGA CAAATACCTT GTGATTGGTA	3420
AAACATTTTA GAAATTCATT TACCTTTCCT AATCGACTTG GTTTCATCTT ATTTCAATCT	3480
ATTATAGTAT TGGGGAATTT CTTCAAACCA CATCAGCTTG GTCAGTTCTA CCTGCGACCT	3540
CAAACTTGT GCTTTGGTCA AGCTGGGTTT AGTTTCCTAG TTTGCTGATG GATTTCCATT	3600
GACTATAAGC ATCCAACCCT CTTTTGTCT TCTAAAGAAT TCTTAAATTA TCAGTCTATT	3660
GCAACTTTTC TCATATAAGT TCTTTGTCTT GCTATTGGTT TTCCTTAGTA GTATACTAAG	3720
GTAGTAATCA TTAAGAAGTG GTTACAAAA ATAATGAATG AGGTAAAGAA AATGGTAGAA	3780
TTGAAAAAAG AAGCAGTAAA AGACGTAACA TCATTGACAA AAGCAGCGCC GG	3832

(2) INFORMATION FOR SEQ ID NO: 93:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 10690 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: double
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 93:

TGAAAAATC CTCATGAACC TGGCGCCAAT AGACAAGTGT CTGTTTCCC TCACCTTCCT	60
TATAGGCATG GTCAGCTGAC ACTCGATTGA AGGGTTTAAC AGAAACCTTT GTAATTTGGA	120
CAATGCAGAC AGCCTGATTT TGACTATCTA AAATGACATC GAAGGTCCCT ACTTGGGGAA	180
GTGGTTCGTC TTCTAGCACA TAGAGGTCAT AGGCTGATGC TGTGCTGTC TTTTCTCCTT	240
TAAACACCAA ATCCGCTAAA AGGTCTGGTT CAACTCCAAA AGCCCAGGCA TCGATTTTCT	300
CTCCGATCAA AGGATTGATT TGCTTGTATT TATTCCACAT TTCTTGCGGT ATCATGGGTG	360
CTCCTTTGTA ATTTTACT TTCTTCTTTT ATGTGTTTAA GATGATCTGG ATGGTCAATC	420
TCTAAATCAA AAATCTCTGG AATAGAACTG TAGTGGATAA TGCACCTGAT ACCCAACTGA	480
TTCAATTTTT GTATGAAAGA AGTATTCAGA TAGCCTGCTA CAGCAAAATC AATCTTGTTT	540
TTTCTTGCTT TATCCTGCAT ATCTCTTAGC ATATCTAACA TTATTGGACT TTCCATATCA	600
TGCCATTGAC TGTCTTCAT AGTCGCAAAA ACAAGGAAG TCAAATCATT CATTCCAACT	660
ACAATCTTTG AAATGCCCCG TTCCAGTATA CTAGATAAGT CAAATACGC TGACGGTAAT	720
TCAATCATCG TTCCGACTTT CCCAGTAAAA CCTGCTGAC GCAATACTGT AATAGCTTGT	780
TTTAATTGGT CGGCATCATT GACAAAAGGA AAGATAACAG ATAGATTGGG GTTGGTTTGA	840

722

TAAACTTCTG TAACGACATG TGCTTCAGCC TGAAATTCAT CCAAACACGC CAGTAAACGC	900
CTAGTTCCTC TATAGCCAAA CAAGGGATGC CCTTCGTCAA AAAACTCTTT AGTCCCCACT	960 /
AAACAATTGG CTTCTGTATT CGTTAATTCA GTAAAACGAT ACCAAACTTC CTTACCTAAG	1020
TAAAAGGAGC AAATAGTATC AAGATAATCT TTCACAAATT CCTGACAACT TTGTAATAGT	1080
ATATTTTGAT TGAGCTCTCT CAATAAGTAT TCCCCACGAA-TCATGCCGAC GTGGTGAAAT	1140
AGTTGAGGAT AAATTTTTTC AAGAATTTTT TCGCCACTAA GGGCAAGTTG ATTTCTCATC	1200
ATTCACCTTC CAATTCATGT AAGAAGTCTT GTCCAGTTCT GGAAATCCTA ATAATTCAGA	1260
CTTAACCTTC AAGACTAATG GCGATGCATT TTCTTCTGTA ATCTCTTGAA TATCCATCCA	1320
AATATATCCA AGTGAATCAT TCGCACCATC AGACACAGCT TCCGAAATCG TAACTTGAGG	1380
TGCACTCTCA TTCATTTCAA CATCATACAA GGCTATGACA TGGTGAACCA TAAAATTTTT	1440
TAACTCTTCC CTGACGAAAA CATCGTAGAT TCGAGGATTA GAGTAGCTTC TAACAGTAAA	1500
TCCCGTCTCT TCCATAACTT CTCTAGTCAG CGTTTCCGTC AGTCCTTCAC CAAGTTGCTG	1560
ACTGCCTCCA GGTAGATCAT ACCGATGTTG ATAAGGGCCT CTCGTTTTTT CAATGCAAAG	1620
TAACTTTCCA TTTTCAAAGC AAACACAGTA GACCCCAAAG TGATTTTTGA TTTCCATCCA	1680
ACTCCTCCTA CTTCAAAGAC CAGCCACCAT CTATTGTCAA GATTTGTCCT TGCATGGCGC	1740
TCGCTTTTCC ACTTGCTAAA AAAAGACTAA GCTCTGCTAT TTCCTCTGGC TCAATCCAGC	1800
GCTTGATTGG GGTTCACATA GCCACCCAGT CAGCCAAACC ACCTGGTTCA AAATCCGCAG	1860
CGGTCATAGC TGTCTTGA CTCTCTGGAG CGATACAAA GACCTGAATC CCAGCTTCAG	1920
CATAGTCTAG AGCCAACTGC TTGGTGAAGC CAGCCAAGGC ATGCTTGGAT GAAGTATAGG	1980
CGTGACCACC TCCACCTGCT AGGCTAGAAG CAATGGAACA CATATTGATG ATGATTCCTT	2040
TTTTATTTTC CAGCATTTGT GTCAAATAAT ACCGAGTCAA CTCTACTGGA ATAATGTAGT	2100
TGATTTCAA AATCTCTTGA ATGTCCTGCG CCGTTGTTC CAACAGTGGT TTGTAATCAT	2160
CCAAACTCC AGCAGTATTA CACAAAACAT CCACCTGAGG GCACCAGTCA AAAATAGGTT	2220
CCAAGTCCAA GGTCAAATCT CTCTGTAAAA AGCGAAAATC ACCCTCTAAG AGTGGCTTTT	2280
CACCTTGGTC AACTCCATAA ACTTGATAGC CCTTCTCTAA AAAGAGGCGA GCTTGAGCCA	2340
ATCCGATCCC TGAACCTACT CCTGTAATGA GTACACGTTT AGTCATGCAC TTCTACCCAA	2400
TCCGTTGCCA AAACATCACA AACTGTCGGG CTCCACATGG AAAAACCTTC TCCTTCGCCA	2460
GAAACGTTGA TTAGGAAATA AGGTGTCATT TCAAGTGCAA GCCCATTTTG CTCGATGGTA	2520
TCAAAGAGTT GGACATAGTT TTCCGCACCT CCCCACCAG TTCGTACATA TTTTCTCTTA	2580
GCCTTTAACC CAGGCAGGAT CTCTTCAAAT GTCATGTTTT TCTCCTTTAA TTCTACATTC	2640

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TTCATTTAAT TATAGCAAAA AACCGCTTTA TACGGCTTTT TGAATGTGAG TTATTCAAAC	2700
CTGCTACTAC TTACGGCAAA TTATTCCCTG CAGCAAGATA AATTTTCATAC CATTCCTTTC	2760
TTGTTAAGCT AAAGTTTGCC GCTCGGCTAA CTTCTCTCAA GTGCTTAGGA TTTGTTGTAC	2820
CTACGACTGC CTGCATTTTT GCTGGATAAC GCAATATCCA AGAAATGGCA ATAGTTGAAG	2880
AGGTTACTCC ATATTTAATA GCTAAACGAT CAAGTACTTG ATTTAAAGCT TGAAATTTCT	2940
CATTTCCAAC AAAATTCCCT TAAAATACC CGAATTGTAA GACAGACCAT GCTTGAATGA	3000
CCACATCGTG TAATTGGCAA TATTCAAAAA TGCTGCCATC TCGCATAGCT GCTTGAATGA	3060
CTTCCATATT AACATGAAAA GCTGATTCAA ATCCTGGAGT AAAAGCCGCA CTCAATTGTA	3120
GCTGATTAAAC AGCTAACGGC TGCTTGACAT CTTTTTAAAG CAACTCCATC ATCATAGGAT	3180
TTTGATTAGA AACTCCAAAA TCTCGAACTT TACCTTGTTT ATAAAGGAGA TTAAAGGCTT	3240
CTGCTACTTG GTCAGATTCC ATCAAAGCAT CTGGTCGATG AAGGAGCAAG CTATCTAGAT	3300
GATCAATCTT CAATCTTTGC AAAATACCGT CTACTGATTT TATAATATAG TCCTTAGAAA	3360
AATCAAAATA GGTAAATTCT TCAATGCGAA TGCCACATTT GGAATGAATC CACATCTTTT	3420
CTCTTAAATC TGGACGATTT TTTAGGACAA GACCTAACAG TTCTTCACAA CGACCACGAC	3480
CATAAATATC AGCCAAGTCG AAGGCATTGA TTCCAACAGA AAGTGCTGTT TCTACAAGCT	3540
CTTCAACTTC TTTTACAGAT TTATCTTTTA TTCTCATCAT TCCGAGAACA ATTTCTGATA	3600
ATTCTTTGTC ATCTTGACCA AGAGTTATGT ATCTCATCAA ATTTTCTCTC TTAAATTTCT	3660
AACATTCTTC CCTTCATTAT AACAAAAAAC CGCTTTGCAA CGACTTTTTG ACTATACTTC	3720
ACTCCATTTT ATCTTCTTAA ACCCACGGAA CAAGACAAAG ATTCCAATAA AGAGGACAGC	3780
TAAAGGAATA ACTTTTGTA GGAACACATT TGAAATTCCC ATCCACTCAT AATAACGGAG	3840
CAGAGAACCC ACCACAAGAT GGGCAATAAT CATACTGACA AATGGACGAA AGACCGCTTC	3900
TTTCCAATTC CAAATACCGA TAACTAGCGA AATCGTAAAG ACAGACAAAC TATCCCAGGG	3960
AGCCGGAATA TAAAAGGCTC CTTCTTGAT GAAGCTTGCC ATTCCTACAT ATCCTAAAAC	4020
AACTAGAAGA ACTATAGTCC CAACAACAAT GTAAGTGCCA ATTTTCATTT TAGGAGAATC	4080
TTGGACTAAA CTTCTTCGTA AAATTGTGGC CACAAGTCCA AATCCAATCA GAAAAATAAG	4140
AAGTTGCCCT AAAAATGTGA GCAAATTGAC TGTAAAGAGA GGACCTTTAG AAAAATCACT	4200
TAGTAGTTGA TAATAACGTA ATACCGCCAG GACAAGAATT GGCGTCAAAA GGGACTCTTT	4260
GATAGAACTG CGAGGTGCTC CCTTGAGAAT CTCTTTCATT ATTTTTTTAG GATTCTTACC	4320
TAGATAATCC TCTGCACTCA TGCCATCTCG TTCTGCTTCT GAGAAATCTA GCATCATCAA	4380

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ATAGATCTGC	TCTCTGAGAT	AGTCTTCATC	ATAGAGAAAT	CCAGCAAGAT	TAAAACTTTC	4440
CCACAACCTCC	TCAAAATACT	TTTGATTCTC	CTCAGAAAAC	TCATGTAGCA	AAGCGCTTGT	4500
TTCTTCGTAA	TACTTCATTT	TCTTCATGGT	TTAACCCCCA	TTCTTAATCC	CTTCTACTTT	4560
TTGACTCAAA	TCGTCCCAT	GTTGCCAAAA	GACTGAGACA	CGCTCTTCTC	CTTCTTTTCAT	4620
TAATGAAAAA	TACTTCCGAT	CTGGACCATC	TGGCGACGGG	CGCATGTCGC	CTCTTATCCA	4680
TTGATTTTTT	TCTAACTTTT	GCAACAAAGG	ATAAATAGTT	CCTGGAACGA	TAGTATCAAA	4740
TCCAGCCTCT	CGCAAAGTCT	GAACCAACTC	ATAACCATAC	CGCTCTTTTT	GACCAATCAT	4800
ATCCAAGACA	CAACCTTCAA	GAACACCTTT	TAATAGCTGA	GTTTCTTTCA	TCACTTCTCC	4860
CTTCTAATCT	ATTTTGTAAT	ACCTACTAGT	GACTTCACCT	ATAGTATATC	ACTTCTACAC	4920
TAGTTTGTA	AGCATAATAG	TTAATACTCT	TCGAAAATCT	CTTCAAACCA	CGTCAGCGTC	4980
GCCCTACCGT	ATGTATGGTT	ACTGACTTCG	TCAGTTTCAT	CTACAACCTC	AAAAACATGT	5040
TTTGAGCTGA	CTTCGTCAGT	TTCATCTACA	ACCTCAAAAC	AGTGTTTTGA	GCTGACTTCG	5100
TCAGTTTCAT	CTACAACCTC	AAAACAGTGT	TTTGAGCTGA	CTTCGTCAGT	TTCATCTACA	5160
ACCTCAAAAA	CATGTTTTGA	GCTGACTTCG	TCAGTTTCGT	CTACAACCTC	AAAACAGTGT	5220
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AAAAACAGAA	CTAGCCTGAA	CTAGTCCTGT	CTACTTTTAC	CCAATCACAC	TTCCATTGCG	5340
TACAGCTGGA	TCAACTGTGA	GAAGGGTTAA	TTTGCCATCA	TGTTCAAGCTG	AGAGAATCAT	5400
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TTTCTTGCCG	ACCAATTCTT	GTTCAATTGG	ATAGTATTTT	GCAATTCCTG	AAAGAATCTG	5520
ACGATCTTCT	CCATCACCAG	CATCCAAGCG	GAATTGAAGC	AACTTATCTG	AACCTTCTAC	5580
TTTAGACACT	TCTTTGACTT	CTGCGACACG	GATTTCAACC	TTGTCAAAGT	CTTCAAACCT	5640
GATTTTCATCC	TTGTTTAGTT	TGAGCTCAAC	TTGTCGCGGA	TTCCATTCTT	TTTCGACTGC	5700
TGGTTTATTG	CCTTCCATTT	GTTCTTGAT	ATAGGCGATT	TCTTCTTCCA	TATTTAGACG	5760
TGGAAAGATA	GGTGTTCCCT	TGGCAACTAC	AGTCACATCT	GCTGGGAAGT	CAGCCAAACT	5820
CAAGTTTTCA	AGACTAGAAA	CTTCTTCCAA	ACCAAGTTGA	GTCAAAACTG	CACGACTAGT	5880
TTCCATCATA	AATGGTTCAA	TCAAGTGAGC	AACTACACGA	ATGCTGGCTG	CCAAGTGGCT	5940
CATGACACTT	GCCAATTGGT	CACGAAGAGC	TTCATCCTTG	GCCAAGACCC	ATGGTGCGGT	6000
CTCATCGATG	TATTTATTGG	TACGAGAGAT	CAGAGTCCAG	ACTGCTTCAA	GCGCACGTGG	6060
ATAGTCAACT	GCTTCCATGT	GTGTATGGAA	GTCTGCGATT	GATTGTWCTG	CAACCTCAGC	6120
AAGAACATGA	TCATATTCAG	TCACACCTTC	TACATAGGCA	GGGATTTGTC	CATCAAAGTA	6180

725

CTTATTAATC ATGGAACCG TACGGTTAAG GAGGTTCCCA AGGTCATTAG CCAATTCATA	6240
GTTGATACGG CCGACATAGT CTTCAGGAGT AAAGGTTCCG TCTGAACCAA CTGGAAGGTT	6300
ACGCATGAGG TAGTAACGAA GTGGATCTAG TCCATAACGC TCTACCAACA TTTCAGGGTA	6360
AACGACATTC CCTTTTGACT TAGACATTTT TCCGTCTTTC ATGACAAACC AACCATGGGC	6420
AATCAAACGA TCAGGTAATT TAACATCCAA CATCATAAGA AGGATTGCCC AGTAGATAGA	6480
GTGGAAGCGA AGGATATCTT TTCCTACCAT ATGGAAGACT GTTCCATTCC AGAACTTGTC	6540
AAAGTTACCA TGTTCGTCTT GAGCGTAGCC AAGAGCTGTC GCATAGTTAA GAAGGGCATC	6600
AATCCAAACG TAGACAACGT GTTTTGGATT TGATGGGACA GGCACCTCCC ATGTAAAGGT	6660
TGTACGAGAT ACCGCCAAAT CTTCCAAGCC TGGCTCGATG AAGTTGCGTA GCATTTCAAT	6720
AAGGCGACCA TCTGGCGTGA TAAATTCAGG ATGAGCTTTG AAAAATTCGA CCAAACGGTC	6780
TTGGTATTTG CTAAGGCGAA GGAAGTATGA TTCTTCAGAA ACCCATTCAA CCTCATGACC	6840
TGATGGAGCA ATACCACCAG TCACATTTCC AGCTTCATCA CGGAAAACCT CTGCCAGCTG	6900
GCTTTCTGTA AAGAATCTT CGTCTGATAC TGAATACCAA CCAGAGTATT CACCCAAGTA	6960
GATATCATCT TGAGCAAGTA AGCGTTCAAA GACTTGTGCG ACAACTTTTT CATGGTAGTC	7020
ATCAGTTGTA CGGATAAATT TATCGTATGA GATATCTAGT AATTGCCAGA GTTCTTTAAC	7080
TCCAACCGCC ATTCCATCAA CATAGGCTTG AGGTGTAATA CCAGCTTCTT CCGCTTTCTG	7140
CTGGATTTTC TGACCATGTT CATCAAGACC TGTCAGATAA AATACATCGT AGCCCATCAG	7200
GCGTTTGTA CCGTCTAGGA CATCACATGC GATAGTTGTG TAGGCAGAAC CGATATGAAG	7260
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TCCTTTCCAG GCAAATGAAA CCTGTTTTTC TAACACTTCA TTATATCACA TTTTAAATGA	7380
ATTTCAATAG GGAAATCCAT AAAAAACAA GATAGACGAG TGTCCATCTT GTTGATCTCA	7440
TTCATAACGA AGGGCTTCAA TTGGATCAAG TTTGATGCC TTGTTGGCTG GCAAGACTCC	7500
AAAAATCATA CCAACACTAG CCGAAACTGC AAGACTAAAT AGGGCGACTG GGATTGATAC	7560
TCCAACCTCT ATACCTTCTA TTAAACCTTG CAGTAACAAA CCTGCTAAGg CAGTTAAACC	7620
ACTTGCAATT GTCAAGCCAA TTAAGCCACC TAACAAGGTC AAAATCATGG ATTCAATCAA	7680
AAACTGAATT AAAATATTGG CACGTGTTGC ACCCAAAGCC TTACGAAGAC CAATCTCACC	7740
AGTGCGCTCT GTCACCGAAA CCAGCATGAT GTTCATGACA CCAGTTCCTC CAACAAAGAG	7800
AGAAATCCCT GCGATGGAAC TAATAATCGT CGTCATAAAA CTAAACGATT GTTGAATTTT	7860
TGCAAATACA ACGGACTCAT CTGCCACCTG GTATTCTCCC TGTTGTAAGC CTGCAAGCTC	7920

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TGTCATTTTT	CGTGCCAGTT	CTGGACCCAG	AGTTGGGGTT	AACTGGTAT	CATTCACCTG	7980
AAAGACAATA	TTAGCTATTT	CATCTACATT	AAAATTCGCA	GCAAGGGAGA	TATTGGTAGT	8040
AATAGGCAAG	CCACCAAACC	CATATATTTT	TGATCTTTTA	GCCTCCGGAC	TAGTATAAAC	8100
CCCAATGACC	CGGTAACATA	ATCCATTGAC	TTCTACAACC	TTGTTAATAG	CCTCTTGAGG	8160
AGATTCAAAT	AACTAATGG	ACAATTCCTC	ATCTAGCAAA	ATGACACTTG	CAAACCTTTT	8220
GAAATCTTGC	TCTCTCAGAC	TACGACCTGC	AATAATTTCA	TTCTTAACAG	CGTCCATGTA	8280
AGTTCTGTTT	CCACCTGTCA	AATTAGCATT	CTCAACCTTT	TTATCTTGAT	AGGTCAAGAT	8340
GGCATTCTGT	GAATTGGTTA	CATAGTAACT	ATCCACTCCC	TTCAGTTTAG	CTGCCTCTTG	8400
GACCCAGGAT	TCTTGCGGTT	TTGGCGGTT	AACAGGAACT	TCCTCTTCCT	TTCCAGAAAC	8460
CGTAAAAGCT	GATTGTTTCT	GAGTAAAAGA	CCCGTCTTTA	CTTTTTTTAG	GAGAGAAAAA	8520
GACGCTAATA	TTTTTCTGAG	ATTTAGTCAT	ATCTTTATTG	ACTTGACGAG	ATAGGGAATC	8580
ACCCAAAGCC	ATAATCACAA	CAACTGATGA	AACACCGATA	ATAATCCCAA	TCATAGTAAG	8640
CAAAGAACGC	ATCTTGTGAG	CCATGATAGA	TGAAAAGGCA	AATTTTCAGAT	TCTGCATCTT	8700
AGTTTTCTCT	CTTTCCTAAC	TGAGCACTGT	CAGACGAAAT	GACCCCATCC	CGAATGACAA	8760
TCTGACGTTT	GGCATAGGCA	GCAATCTCAG	GCTCATGCGT	TACCATGATA	ATGGTTTTTC	8820
CTTCTTTATT	CAAATCAACC	AATAATTGCA	TAATTTGGTT	ACCTGTTTTG	GTATCCAAGG	8880
CTCCTGTCTG	TTTCATCCGT	AGGATAATAG	AAGGATTGTT	TACCAAGGCA	CGCGCAATGG	8940
CTACACGTTG	CTTTTGACCA	CCAGATAATT	CTGAAGGTAA	ATGGTGACTA	CGTTCTGTCA	9000
ATTCAACCTT	GTCTAAATAT	TCCTCAGCCA	ACTTGCGACG	TTTTGAAGAC	GAAACTCCTG	9060
CGTAAATCAA	GGGCAATTCT	ACATTTTGCA	GAGCATTGAG	CTTCGATAGA	AGAAAGAACT	9120
GCTGAAAGAC	AAAACCGATT	TGTTGGTTAC	GGACCTTAGC	TAGTTGTTTT	TCACCAAGCC	9180
CAGCCACTTC	TTGACCTTCA	AGATAATATT	CTCCACTGGT	TGGTGTATCC	AACATGCCAA	9240
TCGTATTCAT	CAGAGTGGAC	TTACCAGACC	CAGATGGTCC	CATGATGGCT	ACAAATTCAC	9300
CCTCATTCAC	TTCTAGATTG	ATATTTTTGA	GAACCTGCAG	TTCTTGGTCA	CCATTACGGT	9360
AACTTCTGAA	GATATTTTTT	AGACTAATTA	GTTGCTTCAT	CAGCCTTCAC	CTCTTTTCCT	9420
TCTTCCAAGG	AAGATGTTGG	ATTACTGATG	ACCTTAGCAC	CGTTCGTTAA	ACCAGAAGTG	9480
ATTTCTTGAT	TTCTGCGTC	AGCATTTCCC	AATGAAACCT	CAACTTTTTT	AGCCTTTTGT	9540
TGTTTCATCCA	CAATCCAGAC	ATAATTTTTA	CTATCATCCA	TTACTAGACT	GCTAACAGGA	9600
ACAAGAATAG	CCTTAGTTTT	GCTTTTAACC	TCAATGTTGA	CAGAAAAACC	TTGTTTCAAA	9660
TCACCAACCT	CGCCTGTCAC	ATCAATAGTA	TAAGGGTATT	TAGAACCTGT	ATTATCCCG	9720

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GCTGCTGGAC TAGCTGCTTC ACCATTGTTT TTAGGATAGT CAGAAATATA GCTTAATTTTC	9780
CCAGTCCATT TTTTATCAGG ATACACTTTA GAAGTAAAGC TTACTTCTTG ACCTACAGAA	9840
AGGTTGGCTA GATTGTACTC AGACAATTCT CCCTTGACTT GTAAATTTTC ATTGCTGACA	9900
ATATGAACCA TAACTTGACT CGCCCCGTGTT GGAGATTTAG AAACATTGCT ATTGACTTCG	9960
ACCACAGTTC CCTCTAGGGT ACTGAGAACA GTTGTTGCAT CCAATTGACT TTGAGCCTTG	10020
CTTAATTGCG CCGCAGCATC TGCACGCGCA TCACGGGCAT CACCCAATTG AGCGTCAATA	10080
GAAGCAACAG AATTTCCAGC CACTGGAGTT GGGCTTTGCA CCGTTGCATC TTCTCCTCCT	10140
ACTGGCGCTG GTAAGTGTGG AGCCGGAGCT GAAGCGGCTT CATTTCGTGC TTGATTGAGT	10200
TCATTGATAT GACGATCTGC CCTAGCTACT GCTCGACTAG CTGAATCATA GGCCGCCTGC	10260
GCTTCTGAAC TACTGTACTT GACTAAAGCC TGCCCTTCGC TGACCTTATC GCCCACAGAA	10320
ACAAGGATTT CATCTAAATC ACCCTTACTA GCATCAAAAT AAACATATTG TTCATTTTTT	10380
GCTGTTACTG TCCCTGACAA TAAACAGAG GAGGCCACGC TTCCTTCCTT GGCAACAACA	10440
AGATGAGTAG GCTCATCTTT TAGAGCAGTC TGAGAAGGTT GTCTAAAGAG TAAATCCCC	10500
CCAGCACCCA ATACAACTAC ACTCGCAGCA CCGATTGCTG CATAAGTTG CCACTTTTTA	10560
GCTTTACCAT TCTTTTCTT CATAATGAAA CTCCTTTTCT TTTTACAAT ACTTTGCTAT	10620
TATACCAAAT TTCCCTCCAG CAAACAATAC AGTTCAGGAT TAAACAATCG TTCGGAATTT	10680
TGCTTTTCGG	10690

(2) INFORMATION FOR SEQ ID NO: 94:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 8195 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 94:

GAGAAAGCGC CCACGTTTCC CCGAAGGGAG AAAGGCGGAC AGGTATCCGG TAAGCGGCCA	60
GGGTCGGAAC AGGAGAGCGC AACGAGGGAG CTTCCCAGGG GGAAACGCCT GGTATCTTTA	120
TAGTCCTGTC GGGTTTCGCC ACCTCTGACT TGAGCGTCGA TTTTGTGAT GCTCGTCAGG	180
GGGGCGGAGC CTATGGAAAA ACGCCAGCAA CGCGGCCTTT TTACGGTTCC TGGCCTTTTG	240
CTGGCCTTTT GCTCACATGT TCTTTCCTGC GTTATCCCCT GATTCTGTGG ATAACCGTAT	300
TACCGCCTTT GAGTGAGCTG ATACCGCTCG CCGCAGCCGA ACGACCGAGC GCAGCGAGTC	360

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AGTGAGCGAG GAAGCGGAAG AGCGCCCAAT ACGCAAACCG CCTCTCCCCG CGCGTTGGCC	420
GATTCATTAA TGCAGCTGGC ACGACAGGTT TCCCGACTGG AAAGCGGGCA GTGAGCGCAA	480
CGCAATTAAT GTGAGTTAGC TCACTCATTG GGCACCCAG GCTTTACACT TTATGCTTCC	540
GGCTCGTATG TTGTGTGGAA TTGTGAGCGG ATAACAATTT CACACAGGAA ACAGCTATGA	600
CaTGATTACG AATTGAGCT CGGTACCCGG AAAATCCAGA AAATGCTTGA AAAAAATCCT	660
AGAAGATGGT ATAATACTAA ATTGTAAGGG TTATCACATA TAACTCAAAA AAAGAAAGAA	720
CAAAAGGAGA GTCAAATAT GGCTTCTAAA GATTTCCACG TAGTGGCAGA AACAGGTATT	780
CACGCACGTC CAGCAACATT GTTGGTACAA ACTGCTAGCA AATTTGCTTC AGATATCACT	840
CTTGAGTACA AAGGTAAATC AGTTAACCTT AAATCAATTA TGGGTGTTAT GAGTCTTGGT	900
GTTGGCCAAG GTGCTGACGT AACTATCTCA GCTGAAGGTG CAGATGCAGA TGACGCTATC	960
GCTGCAATCT CAGAAACAAT GGAAAAAGAA GGATTGGCAT AAGGGAAATG ACAGAAATGC	1020
TTAAAGGAAT CGCAGCATCT GACGGTGTG CAGTTGCAAA AGCATATCTA CTCGTTTACG	1080
CGGATTTGTC ATTTGAGACT ATTACAGTCG AAGATACAAA CGCAGAAGAA GCTCGCCTTG	1140
ATGCCGCTCT ACAGGCATCA CAAGACGAGC TTTCTGTTAT TCGCGAGAAA GCAGTAGGTA	1200
CGCTCGGTGA AGAAGCAGCT CAAGTTTTTG ATGCTCACTT AATGGTTCTT GCTGACCCAG	1260
AAATGATCAG CCAAATCAAG GAACTATCC GTGCGAAGAA AGTGAATGCA GAAGCAGGTC	1320
TGAAAGAAGT TACAGATAGT TTTATCACTA TCTTTGAAGG CATGGAAGAC AACCATACA	1380
TGCAAGAACG CGCAGCGGAT WTCCGCGACG TGACAAAACG TGTATTGGCA AACCTTCTTG	1440
GTAAAAAATT GCCAAACCCA GCTTCTATCA ATGAAGAAGT GATTGTGATT GCGCATGACT	1500
TGACTCCTTC AGATACAGCT CAATTGGACA AAACTTTGT AAAAGCTTTT GTAACCAACA	1560
TTGGTGGACG TACAAGCCAC TCAGCTATCA TGGCAGGTAC ACTTGAAATT GCTGCTGTAT	1620
TAGGTACAAA TAACATCACT GAAATCGTTA AAGACGGTGA CATCCTTGCT GTTAACGGGA	1680
TCACTGGAGA AGTGATTATC AACCCAACAG ATGAACAAGC GGCAGAATTT AAAGCAGCTG	1740
GTGAAGCCTA TGCGAACAA AAAGCTGAAT GGGCACTTTT GAAAGATGCT CAAACAGTGA	1800
CTGCTGACGG TAAACACTTC GAGTTGGCTG CTAATATCGG TACTCCAAA GACGTTGAAG	1860
GTGTTAACA CAACGGTGCA GAAGCTGTTG GACTTTACCG TACAGAGTTC TTGTACATGG	1920
ATTCTCAAGA CTTCCCACT GAAGATGAGC AGTATGAAGC ATACAAGGCT GTTCTTGAAG	1980
GAATGAACGG TAAACCTGTT GTCGTTGTA CAATGGATAT CCGTGGAGAT AAGGAACTTC	2040
CTTACTTCGA TATGCCTCAC GAAATGAACC CATTCTTGG ATTCCGTGCT CTTGCTATCT	2100
CTATCTCTGA GACTGGAGAT GCTATGTTCC GCACACAAAT CCGTGCTCTT CTTGCTGCGT	2160

729

CTGTTACGG TCAATTGCGT ATCATGTTCC CAATGGTTGC GCTCTTGAAA GAATTCCTG	2220
CAGCGAAAGC AGTCTTTGAT GAAGAAAAAG CAAACCTTCT TGCTGAAGGT GTTGCAGTTG	2280
CGGATAACAT CCAAGTTGGT ATCATGATCG AGATTCTCTG AGCGGCTATG CTTGCAGACC	2340
AATTTGCTAA AGAAGTTGAC TTCTTCTCAA TTGGTACAAA CGACTTGATC CAATATACAA	2400
TGGCAGCAGA CCGTATGAAC GAACAAGTTT CATACCTTTA CCAACCATAC AACCCATCAA	2460
TCCTACGCTT GATTAACAAT GTGATCAAAAG CAGCTCACGC TGAAGGTAAG TGGGCTGGTA	2520
TGTGTGGTGA GATGGCTGGT GACCAACAAG CTGTTCCACT TCTTGTCTGA ATGGGCTTGG	2580
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ACACAGCTAA GATGGAAGAG TACGCAAACC GTGCCCTTAC AGAATGCTCA ACAATGGAAG	2700
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CTGCAATTTA GAAATGAATT GCAACTAGAA ATATCAAATA GAAAGAGAGT TTCGATGAAA	3000
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GCGACCACTA TCATTATTAC AATGGTAAGG TTCCTTATGA CGCTATCATC AGTGAAGAAT	3300
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GTGGATATGT TATCAAGGTA GATGGAAAAT ACTATGTTTA CCTTAAGGAT GCTGCCCACG	3420
CGGATAACGT CCGTACAAAA GAGGAAATCA ATCGACAAAA ACAAGAGCAT AGTCAACATC	3480
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GCGAGTTGGC TGCTGCAGAA GCCTTCCTAT CTGGTCGAGG AAATCTGTCA AATTCAAGAA	3720
CCTATCGCCG ACAAATAGC GATAACACTT CAAGAACAAA CTGGGTACCT TCTGTAAGCA	3780
ATCCAGGAAC TACAAATACT AACACAAGCA ACAACAGCAA CACTAACAGT CAAGCAAGTC	3840
AAAGTAATGA CATTGATAGT CTCTTGAAAC AGCTCTACAA ACTGCCTTTG AGTCAACGAC	3900

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ATGTAGAATC TGATGGCCTT GTCTTTGATC CAGCACAAAT CACAAGTCGA ACAGCTAGAG	3960
GTGTTGCAGT GCCACACGGA GATCATTACC ACTTCATCCC TTA CTCTCAA ATGTCTGAAT	4020
TGGAAGAACG AATCGCTCGT ATTATTCCCC TTCGTTATCG TTCAAACCAT TGGGTACCAG	4080
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CTGCACCAA TCTTAAAATA GACTCAAATT CTTCTTTGGT TAGTCAGCTG GTACGAAAAG	4200
TTGGGGAAGG ATATGTATTC GAAGAAAAGG GCATCTCTCG TTATGTCTTT GCGAAAGATT	4260
TACCATCTGA AACTGTAAA AATCTTGAAA GCAAGTTATC AAAACAAGAG AGTGTTTCAC	4320
ACACTTTAAC TGCTAAAAA GAAAATGTTG CTCCTCGTGA CCAAGAATTT TATGATAAAG	4380
CATATAATCT GTTAACTGAG GCTCATAAAG CCTTGTTTGA AAATAAGGGT CGTAATTCTG	4440
ATTTCCAAGC CTTAGACAAA TTATTAGAAC GCTTGAATGA TGAATCGACT AATAAGAAA	4500
AATTGGTAGA TGATTTATTG GCATTCCTAG CACCAATTAC CCATCCAGAG CGACTTGGCA	4560
AACCAAATTC TCAAATTGAG TATACTGAAG ACGAAGTTCTG TATTGCTCAA TTAGCTGATA	4620
AGTATACAAC GTCAGATGGT TACATTTTTG ATGAACATGA TATAATCAGT GATGAAGGAG	4680
ATGCATATGT AACGCCTCAT ATGGGCCATA GTCACTGGAT TGGAAAAGAT AGCCTTTCTG	4740
ATAAGGAAAA AGTTGCAGCT CAAGCCTATA CTAAGAAAA AGGTATCCTA CCTCCATCTC	4800
CAGACGCAGA TGTTAAAGCA AATCCAAC TG GAGATAGTGC AGCAGCTATT TACAATCGTG	4860
TGAAAGGGGA AAAACGAATT CCACTCGTTC GACTTCCATA TATGGTTGAG CATACAGTTG	4920
AGGTTAAAAA CGGTAATTTG ATTATTCCTC ATAAGGATCA TTACCATAAT ATTAAATTTG	4980
CTTGGTTTGA TGATCACACA TACAAAGCTC CAAATGGCTA TACCTTGGA GATTTGTTTG	5040
CGACGATTAA GTACTACGTA GAACACCCTG ACGAACGTCC ACATTCTAAT GATGGATGGG	5100
GCAATGCCAG TGAGCATGTG TTAGGCAAGA AAGACCACAG TGAAGATCCA AATAAGAACT	5160
TCAAAGCGGA TGAAGAGCCA GTAGAGGAAA CACCTGCTGA GCCAGAAGTC CCTCAAGTAG	5220
AGACTGAAAA AGTAGAAGCC CAACTCAAAG AAGCAGAAGT TTTGCTTGCG AAAGTAACGG	5280
ATTCTAGTCT GAAAGCCAAT GCAACAGAAA CTCTAGCTGG TTTACGAAAT AATTTGACTC	5340
TTCAAATTAT GGATAACAAT AGTATCATGG CAGAAGCAGA AAAATTACTT GCGTTGTAA	5400
AAGGAAGTAA TCCTTCATCT GTAAGTAAGG AAAAAATAA CTAATGAAAA ATGAAAGTCT	5460
CGATAAAGAG GCTTTCATTT TTATTATGTA TATATGTAAA ATTCTTGACA AGCAATATTA	5520
AAAAGAGTAA ACTATTAACT AGTTAATTAA CCGGTTTATT ACTTTATAGT GAATCAAATA	5580
TACTTAAGAA AAGAGGAAAG AATGAAAATT AATAAAAAAT ATCTAGCAGG TTCAGTGGCA	5640
GTCCTTGCCC TAAGTGTGTTG TTCCTATGAA CTTGGTCGTC ACCAAGCTGG TCAGGTTAAG	5700

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AAAGAGTCTA ATCGAGTTkC TTATATAGAT GGTGATCAGG CTGGTCAAAA GGCAGAAAAC	5760
TTGACACCAG ATGAAGTCAG TAAGAGGGAG GGGATCAACG CCGAACAAAT CGTCATCAAG	5820
ATTACGGATC AAGGTTATGT GACCTCTCAT GGAGACCATT ATCATTACTA TAATGGCAAG	5880
GTCCCTTATG ATGCCATCAT CAGTGAAGAG CTCCTCATGA AAGATCCGAA TTATCAGTTG	5940
AAGGATTCAG ACATTGTCAA TGAAATCAAG GGTGGTTATG TTATCAAGGT AGATGGAAAA	6000
TACTATGTTT ACCTTAAGGA TGCAGCTCAT GCGGATAATA TTCGGACAAA AGAAGAGATT	6060
AAACGTCAGA AGCAGGAACA CAGTCATAAT CACGGGGGTG GTTCTAACGA TCAAGCAGTA	6120
GTTGCAGCCA GAGCCCAAGG ACGCTATACA ACGGATGATG GTTATATCTT CAATGCATCT	6180
GATATCATTG AGGACACGGG TGATGCTTAT ATCGTTCCTC ACGGCGACCA TTACCATTAC	6240
ATTCCTAAGA ATGAGTTATC AGCTAGCGAG TTAGCTGCTG CAGAAGCCTA TTGGAATGGG	6300
AAGCAGGGAT CTCGTCCTTC TTCAAGTTCT AGTTATAATG CAAATCCAGC TCAACCAAGA	6360
TTGTCAGAGA ACCACAATCT GACTGTCACT CCAACTTATC ATCAAAATCA AGGGGAAAAC	6420
ATTTCAAGCC TTTTACGTGA ATTGTATGCT AAACCCCTTAT CAGAACGCCA TGTGGAATCT	6480
GATGGCCTTA TTTTCGACCC AGCGCAAATC ACAAGTCGAA CCGCCAGAGG TGTAGCTGTC	6540
CCTCATGGTA ACCATTACCA CTTTATCCCT TATGAACAAA TGTCTGAATT GGAAAAACGA	6600
ATTGCTCGTA TTATTCCCCT TCGTTATCGT TCAAACCATT GGGTACCAGA TTCAAGACCA	6660
GAACAACCAA GTCCACAATC GACTCCGGAA CCTAGTCCAA GTCCGCAACC TGCACCAAAT	6720
CCTCAACCAG CTCCAAGCAA TCCAATTGAT GAGAAATTGG TCAAAGAAGC TGTTCGAAAA	6780
GTAGGCGATG GTTATGTCTT TGAGGAGAAT GGAGTTTCTC GTTATATCCC AGCCAAGGAT	6840
CTTTCAGCAG AAACAGCAGC AGGCATTGAT AGCAAACCTGG CCAAGCAGGA AAGTTTATCT	6900
CATAAGCTAG GAGCTAAGAA AACTGACCTC CCATCTAGTG ATCGAGAATT TTACAATAAG	6960
GCTTATGACT TACTAGCAAG AATTCACCAA GATTTACTTG ATAATAAAGG TCGACAAGTT	7020
GATTTTGAGG CTTTGGATAA CCTGTTGGAA CGACTCAAGG ATGTCyCAAG TGATAAAGTC	7080
AAGTTAGTGG ATGATATTCT TGCCTTCTTA GCTCCGATTC GTCATCCAGA ACGTTTAGGA	7140
AAACCAAATG CGCAAATTAC CTACACTGAT GATGAGATTC AAGTAGCCAA GTTGGCAGGC	7200
AAGTACACAA CAGAAGACGG TTATATCTTT GATCCTCGTG ATATAACCAG TGATGAGGGG	7260
GATGCCTATG TAACTCCACA TATGACCCAT AGCCACTGGA TTAaaaaAGA TAGTTTGTCT	7320
GAAGCTGAGA GAGCGGCAGC CCAGGCTTAT GCTAAAGAGA AAGGTTTGAC CCCTCCTTCG	7380
ACAGACCATC AGGATTCAGG AAATACTGAG GCAAAAGGAG CAGAAGCTAT CTACAACCGC	7440

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GTGAAAGCAG CTAAGAAGGT GCCACTTGAT CGTATGCCTT ACAATCTTCA ATATACTGTA	7500
GAAGTCAAAA ACGGTAGTTT AATCATACCT CATTATGACC ATTACCATAA CATCAAATTT	7560
GAGTGGTTTG ACGAAGGCCT TTATGAGGCA CCTAAGGGGT ATACTCTTGA GGATCTTTTG	7620
GCGACTGTCA AGTACTATGT CGAACATCCA AACGAACGTC CGCATTGAGA TAATGGTTTT	7680
GGTAACGCTA GCGACCATGT TCGTAAAAAT AAGGTAGACC AAGACAGTAA ACCTGATGAA	7740
GATAAGGAAC ATGATGAAGT AAGTGAGCCA ACTCACCTG AATCTGATGA AAAAGAGAAT	7800
CACGCTGGTT TAAATCCTTC AGCAGATAAT CTTTATAAAC CAAGCACTGA TACGGAAGAG	7860
ACAGAGGAAG AAGCTGAAGA TACCACAGAT GAGGCTGAAA TTCCTCAAGT AGAGAATTCT	7920
GTTATTAACG CTAAGATAGC AGATGCGGAG GCCTTGCTAG AAAAAGTAAC AGATCCTAGT	7980
ATTAGACAAA ATGCTATGGA GACATTGACT GGTCTAAAAA GTAGTCTTCT TCTCGGAACG	8040
AAAGATAATA AACTATTTTC AGCAGAAGTA GATAGTCTCT TGGCTTTGTT AAAAGAAAGT	8100
CAACCGGCTC CTATACAGTA GTAAAATGAA TGGAGCATAT TTTATGGAGA AGTAACCTTT	8160
CGTGTTACTT CTCTTTTTA GAAAAACGTA ACAGA	8195

(2) INFORMATION FOR SEQ ID NO: 95:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 2004 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 95:

TTTACTAAAA GGAAAAAGA ACTGATTCTT CAGTCCTTCA TTAATCTTAT TCCACACTAA	60
ATAGGTATGG GTAAACAGGT TGTTGACCTT GGTGAATCTC GACTTCAACG TCTTCGAATT	120
CTTCTACGAT TTCTTGAGCG ATTTCAATTG CAAGTTCTTC GCTTCCGTCT TCACCTACAT	180
AGAAGGTTAC GATTTCACTG TCTTCATCCA ACATATGTTT CAAGGTTTCA GTCAATGIMT	240
GGTGCATATC AGGGTTTGAC ACAAGAATTT TTCCATCCAC CATACTAAA TTATCGTTTT	300
CATGGATTTT TAAGCCATCG ATCGTTGTAT CACGCACGGC TGTTGTGACG CTTCCGCTAA	360
CGACATCGCT AAGAGCAGCT GTCATACGCT CTTGGTTTTT TTCAATGGAC TTGCTTGGAT	420
CAAAGGCAAG AAGACTTGTC ATACCTTGAG GAAGAGTGCG AGCCTCTACC ACTACCGCTG	480
GTTGCTCCAA AACTTCTGCC GCAGATTGAG CTGCCATGAA GATGTTCTTG TTGTTTGGCA	540
AGAAGATGAT GTTACGGGCA TTAACCTGTT CAACAGCCTT GATAAAGTCT TCTGTTGAAG	600
GGTTCATGGT TTGACCGCCT TCGATAACAT AATCCACGCC TTGAGAACAG AAGATATCTG	660

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CTAGACCTTT ACCAGCCACC ACAGCAATCA AAGCATACTC TTTTCTTCA GCCGACTTGA	720
TAACCTGAGT AGCTTCTTTC TCAACCTGTG CTTTCGTGTG GTTACGCATA TTGTCAACTT	780
TTACCTTGAC CAAGCTACCA TATTTGAGAC CTTCTTGCAT AACCAAGTCCT GGATCTTCTG	840
TATGAACATG GACTTTGACA ATTTTCATCAT CGTTAACAAC AAGGAGAGAA TCTCCAAGCT	900
CATCCAAGTA GTTACGGAAT TCATCGTAGT CAAAATCTTT AGCATAGGTT GGACCTTGCT	960
TAAGAGCTAC CATGATTTCA GTACAGTAAC CAAACGTGAT GTCCTCAGTC GCTACGTGAC	1020
CAGCTACAGA CTTATGATGC TCTACATTGA TCATCTCACT CATGTTGGCA GGAGTCGCTA	1080
CAAAGTCCTC AGATGCAATA TATTCGCCAG TAAGGGCTGA AAGGAAACCT TCGTAGATGA	1140
AGACCAATCC TTGACCACCT GAGTCCACAA CGCCAACCTC TTTCAATACT GGAAGCATGT	1200
CTGGTGTTTT AGCTAGAGCT GTTTTAGCAC CTTCCAAGGC TCGCGCATG ACTTCAACAG	1260
CGTCATCTGT TTGCTCAGCT TTTTCTTAG CACCGATAGC AGCTCCACGA GAAACTGTTA	1320
AAATCGTTCC TTCAACAGGT TTCATCACTG CTTTATAGGC AACTTCCACA CCTGATTGGA	1380
AGGCCAGAGC CAAGTCTTGA CCTGTAACT CGTCTTTATC CTTGATAGCT TGGGAAAATC	1440
CACGGAAAAG CTGAGACGTA ATCACTCCTG AGTTCCACG CGCACCCATC AAAAGCCCTT	1500
TGGCAAGAAT GCTCGCTACT TCTCCAAGT TAGAAGCTGG CTTGTCTGCA ACTTCTTTAG	1560
CACCATTTTC AATGGTCATT CCCATATTTG TCCCAGTATC TCCATCTGGA ACTGGAAAGA	1620
CGTTTAATGA ATTGACATAT TCAGCTTGCT TATTCAAGCG AGTTGATGCA GCCTGCACCA	1680
TTTCTTGAAA TAAGCTAGTA GTAATTTTGT ACACGGTTAT TCTCCTACAA CTTTGATATT	1740
TTGAATGTAG ACATTTACAG TCTGAGCAGT AATTCCAAGC TGGTTTCCA AGCTAAAGGC	1800
AACACGCTCT TGAATGTTTT TTGACACTTC ACTAATCTTT GTTCCGTAGC TTAACACGGT	1860
ATATACATCA ACTGCAATAC TGCCATCTTC GGCTGCCTTT ACGACGACAC CTTTAGAATA	1920
ATTTTCCTTA CCTAGCAGGG CTTGGAAATT ATCTTTGAGG GCATTTTAC TAGCCATACC	1980
GACCACACCA GAAATCTCAG TTGC	2004

(2) INFORMATION FOR SEQ ID NO: 96:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 11915 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 96:

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CCGGGTGGG CTGTTGCCC ATTAAAGCG CACCACAGCT GGGTTCAGAA CGTCGTGAGA	60
CAGTTCGGTC CCTATCCGTC GCGGGCGTAG GAAATTTGAG AGGATCTGCT CCTAGTACGA	120
GAGGACCAGA GTGGACTTAC CGCTGGTGTA CCAGTTGTCT TGCCAAAGGC ATCGCTGGGT	180
AGCTATGTAG GGAAGGGATA AACGCTGAAA GCATCTAAGT GTGAAACCCA CCTCAAGATG	240
AGATTTCCCA TGATTATATA TCAGTAAGAG CCCTGAGAGA TGATCAGGTA GATAGGTTAG	300
AAGTGAAGT GTGGCGACAC ATGTAGCGGA CTAATACTAA TAGCTCGAGG ACTTATCCAA	360
AGTAACTGAG AATATGAAAG CGAACGGTTT TCTTAAATTG AATAGATATT CAATTTTGAG	420
TAGGTATTAC TCAGAGTTAA GTGACGATAG CCTAGGAGAT ACACCTGTAC CCATGCCGAA	480
CACAGAAGTT AAGCCCTAGA ACGCCGGAAG TAGTTGGGGG TTGCCCCCTG TGAGATAGGG	540
AAGTCGCTTA GCTCTAGGGA GTTTAGCTCA GCTGGGAGAG CATCTGCCTT ACAAGCAGAG	600
GGTCAGCGGT TCGATCCCGT TAACTCCCAT TTTAGCGGGT GTAGTTTAGT GGTA AAACTA	660
CAGCCTTCCA AGCTGTTGTC GCGAGTTCGA TTCTCGTCAC CCGCTTTGAA CTTTGTCTT	720
TGTACCAAGT TTTGACTTG GCGCGTAGC TCAGGTGGTT AGAGCGCACG CCTGATAAGC	780
GTGAGGTCGG TGGTTCGAGT CCACTCGTGC CCATAGTGTT TAGTCCATTA CTAGGGGATT	840
GGAATATTAT CTGTTCACTA AGAGGACACG GGCTTGTTC CGTATAAACT ATTTTGGAGG	900
ATTACCCAAG TCCGGCTGAA GGAACGGTC TTGAAAACCG TCAGGCGTGT AAAAGCGTGC	960
GTGGGTTTCA ATCCACATC CTCCTTTTAT ATTAACGCGG GATGGAGCAG CTCGGTAGCT	1020
CGTCGGGCTC ATAACCGAA GGTCTAGGT TCAAATCCTG CTCCCGCAAT AAGGCTCGGT	1080
AGCTCAGTTG GTAGAGCAAT GGATTGAAGC TCCATGTGTC GGCGGTTCGA TTCCGTCTCG	1140
CGCCATTTAT ATATTTTGA AGGGTAGCGA AGAGGCTAAA CGCGGCGGAC TGTAATCCG	1200
CTCCTTCGGG TTCGGGGTT CGAATCCCTC CCCTTCCATT TTACGGGCAT AGTTTAAAGG	1260
TAGAACTAAG GTCTCAAAA CCTTCAGTGT GGGTTCAATT CCTACTGCCC GTGTTAATAG	1320
AATTATGGCG GGTGTGGTGA AGTGGTTAAC ACACCAGATT GTGGCTCTGG CATGCGTGGG	1380
TTCGATCCCC ATCACTCGCC TATTTTATAT TGGGGTATAG CCAAGCGGTA AGGCAAGGGA	1440
CTTTGACTCC CTCATGCGTT GGTTCGAATC CAGCTACCCC AGTTACTATT TGCCGGCGTG	1500
GCGGAATTGG CAGACGCGCT GGA CTCAAAA TCCAGTGTCC GCAAGGACGT GCCGGTTCGA	1560
CCCCGGCCGC CCGTATAGTA TAGTGTTAGG AACGTTGTTA TTCTTCGTTT CTTTTTTATA	1620
TTATTTTGG TATAATTATA GTTATTCAAA TTTTATTTAG ATTAAGAAAG TG TAGGGGAG	1680
TATGTCTTGT TCTATCGATT TATTAACA TCGGTATTTG AAAAATATTA AAGAAAATCC	1740
TGAATTGTTT GTCGGAATTG AGTTGGAGTA TCCTGTTGCA AGTTTAGAAG GGGATGCTAC	1800

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AGATGTTGAA GTTATGAAGG ATCTATTTCA TTATTTAGTT TCTACTTTGG ATCTCACCGT	1860
AGCAAAGGTA GATGATTTTG GCAATCTGAT CCAGTTAGTA GATCCGATAA GTCAGGATGC	1920
TATTTTATTT GAAGTTTCCT ATACAACGAT TGAGTTTGCA TTTGGTAAGG CTGAAACGAT	1980
TCAAGAGGTC GAAAATCGTT TCAATAATTA TATGAATGTA ATTCAGAGAA AGTTAGCTGA	2040
ATCAAATCAT GCTATTGTTG GCTGTGGTAT CCATCCCAAC TGGGATAAAA ATGAGAATTG	2100
TCCAGTGGCT TATCCACGCT ATCAGATGTT GATGGATTAT TTGAATTTGA GTAGAAATAT	2160
TATTAAATCA GATTTACATC ATTTCCCTGA ATATGGTACT TTTATCTGTG GGAGCCAGGT	2220
TCAGCTGGAT ATTTCAAAAA CCAACTACTT ACGGGTGATT AATGCTTTTA CTCAAATTGA	2280
AGCGGCTAAG GCTTATTTAT TTGCAAATC TGAATTTTCG GGTGCGGATT GGGATACGAA	2340
AATTTCAAGG GATATTTTCT GGAAGAATC TATGCATGGT ATCTATCCAG AGAATGTTGG	2400
GGTCAATGCT AGACTCCTTA ATGATGAAAC TGATTTTTTT GACTATCTAA ATCATTCTGC	2460
GATTTTTACT GCGGAACGTG ATGGGCAGAC CTATTATTTT TATCCTATTC AGGCTGGGGA	2520
CTATTTGGCT ACGTCCGAAA TCCAAGCATT TGCTCTGAAT GGGGATGAGG TTATTATTTA	2580
CCCCAAGAG AAGGATTTTG AAATCATCG TAGTTACCAG TACCAAGATT TAACGACTCG	2640
AGGAACAGTT GAGTTTCGTA GTGTGTGTAC ACAGCCACTT GATAGGACTT TTGCTTCTGC	2700
AGCTTTTCAC TTGGGATTAT TGGTTAATTT AGACAAGTTA GAAGCTTACT TAGAAACAGC	2760
ACCTTTCTTT AAAGTATTTG GTTATGATTA CAAGTCTTTA AGGAGACAAT TTTCTAAGAA	2820
AAATCTTACA GATGAGGAAG AAATACGAT TATTGAATTT TCCAAAGACT TACTCCTACT	2880
AGCTGAGGAG GGAAGTAGTG TGAGAAATAA GGAAGAAATG ACCTATTTAC AGCCTTTGAG	2940
AGAAGAATTG AGCCTATAAT TTCTCTTATA AAGGGAGAAT TTTCTGAAAA ATCATGATAT	3000
AATGGACGAG ACTATAGATA AAGGATAGAG AGTAATGACA TTAGTTTATC AATCAACGCG	3060
TGATGCCAAC AATACAGTAA CTGCCAGCCA AGCAATTTTG CAAGGTTTGG CGACGGACGG	3120
CGGTTTGTTT ACACCGGATA CTTATCCAAA GGTAGATTTG AACTTTGACA AATTGAAAGA	3180
TGCTTCTTAC CAGGAAGTTG CTAAGCTAGT TTTGTCAGCA TTTTLAGATG ACTTTACAGT	3240
TGAGGAGTTG GACTACTGTA TCAACAATGC CTACGATAGC AAATTTGATA CTCCAGCTAT	3300
TGCACCATTA GTGAAATTAG ATGGGCAATA CAATTTGGAA CTTTTCATG GTTCAACGAT	3360
TGCCTTTAAG GATATGGCCT TGTCTATTTT GCCATACTTT ATGACGACTG CTGCTAAGAA	3420
ACATGGTTTG GAGAACAAGA TTGTTATCTT GACAGCGACA TCTGGTGACA CGGGGAAAGC	3480
TGCTATGGCG GGGTTTGCGA ATGTGCCTGG TACTGAGATT ATCGTCTTTT ATCCAAAGGA	3540

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TGGTGTCTCAGC	AAGATTCAAG	AGTTACAAAT	GACCACTCAG	ACTGGCGACA	ATACTCATGT	3600
TATTGCTATT	GATGGTAACT	TTGACGATGC	GCAAACAAAT	GTGAAGCACA	TGTTTAACGA	3660
CGTGGCTCTT	CGTGAAAAAT	TGACTACCAA	CAAGTTGCAA	TTTTCATCAG	CTAACTCTAT	3720
GAACATTGGT	CGTCTGGTGC	CACAAATTGT	TTATTATGTT	TATGCTTACG	CTCAATTGGT	3780
TAAGACTGGT	GAAATTGTAG	CTGGTGAAAA	GGTTAACTTC	ACAGTACCAA	CAGGAAACTT	3840
TGGAAATATC	TTGGCTGCCT	TTTATGCCAA	ACAAATTGGT	TTGCCAGTTG	GTAATTAAT	3900
CTGTGCTTCA	AATGACAACA	ATGTTTTGAC	AGACTTCTTT	AAAACACGTG	TCTATGACAA	3960
AAAACGTGAG	TTTAAGGTAA	CAACCAGCCC	ATCTATGGAT	ATCTTGGTAT	CTTCAAACCTT	4020
GGAGCGCTTG	ATTTTCCATC	TTTTGGGAAA	TAATGCTGAA	AAGACAACCTG	AACTTATGAA	4080
TGCCTTGAAC	ACGCAAGGAC	AATATAAGTT	GACAGACTTT	GATGCAGAGA	TTTTGGACCT	4140
CTTTGCAGCT	GAATATGCCA	CTGAGGAAGA	AACGGCAGCA	GAGATCAAGC	GTGTTTGTGA	4200
GTTAGATTCT	TATATCGAGG	ACCCTCATAC	AGCTGTTGCT	TCAGCAGTTT	ATAAAAAATA	4260
CCAATCGGCC	ACTGGAGATG	TAAC TAAGAC	AGTGATTGCT	TCAACAGCTA	GTCCATACAA	4320
GTTCCAGTA	GTTGCAGTAG	AAGCTGTAAC	TGGAAAAGCA	GGTTTAACAG	ACTTTGAAGC	4380
CTTGGCTCAA	TTACATGAAA	TCTCAGGCGT	TGCAGTGCCA	CCAGCAGTTG	ATGGGCTTGA	4440
AATAGCTCCA	ATTCTGTCACA	AGACAACAGT	GGCAGCTGCT	GACATGCAAG	CAGCGGTTGA	4500
GGCTTATTTA	GGACTTTAAG	ACAGAGGGAG	CAAACCTCGT	TGGGAAACCA	ACTGAGTTTC	4560
TTTTCATCAG	GAGGAGAGAT	TGTTTAAGAA	AAATAAAGAC	ATTCTTAATA	TTGCATTGCC	4620
AGCTATCGGT	GAAAACTTTT	TGCAGATGCT	AATGGGAATG	GTGGACAGTT	ATTTGGTTGC	4680
TCATTTAGGA	TTGATAGCTA	TTTCAGGGGT	TTCAGTAGCT	GGTAATATTA	TCACCATTTA	4740
TCAGGCGATT	TTCATCGCTC	TGGGAGCTGC	TATTTCCAGT	GTTATTTCAA	AAAGCATAGG	4800
GCAGAAAGAC	CAGTCGAAGT	TGGCCTATCA	TGTGACTGAG	GCGTTGAAGA	TTACCTTACT	4860
ATTAAGTTTC	CTTTTAGGAT	TTTTGTCCAT	CTTCGCTGGG	AAAGAGATGA	TAGGACTTTT	4920
GGGGACGGAG	AGGGATGTAG	CTGAGAGTGG	TGGACTGTAT	CTATCTTTGG	TAGGCGGATC	4980
GATTGTTCTC	TTAGGTTTAA	TGACTAGTCT	AGGAGCCTTG	ATTCTGTCAA	CGCATAATCC	5040
ACGTCTGCCT	CTCTATGTTA	GTTTTTTATC	CAATGCCTTG	AATATTCTTT	TTTCAAGTCT	5100
AGCTATTTTT	GTTCTGGATA	TGGGGATAGC	TGGTGTGCT	TGGGGGACAA	TTGTGTCTCG	5160
TTTGGTTGGT	CTTGTGATTT	TGTGGTCACA	ATTAAAACTG	CCTTATGGGA	AGCCAACTTT	5220
TGGTTTAGAT	AAGGAACTGT	TGACCTTGCC	TTTACCAGCA	GCTGGAGAGC	GACTTATGAT	5280
GAGGGCTGGA	GATGTAGTGA	TCATTGCCTT	GGTCGTTTCT	TTTGGGACGG	AGGCAGTTGC	5340

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TGGGAATGCA ATCGGAGAAG TCTTGACCCA GTTTAACTAT ATGCCTGCCT TTGGCGTCGC	5400
TACGGCAACG GTCATGCTGT TGGCCCGAGC AGTTGGAGAG GATGATTGGA AAAGAGTTGC	5460
TAGTTTGAGT AAACAAACCT TTTGGCTTTC TCTGTTCTC ATGTTGCCCC TGTCCTTTAG	5520
TATATATGTC TTGGGTGTAC CATTAACTCA TCTCTATACG ACTGATTCTC TAGCGGTGGA	5580
GGCTAGTGTT CTAGTGACAC TGTTTTCACT ACTTGGGACC CCTATGACGA CAGGAACAGT	5640
CATCTATACG GCAGTCTGGC AGGGATTAGG AAATGCACGC CTCCCTTTT ATGCGACAAG	5700
TATAGGAATG TGGTGTATCC GCATTGGGAC AGGATATCTG ATGGGGATTG TGCTTGGTTG	5760
GGGCTTGCCT GGTATTTGGG CAGGGTCTCT CTTGGATAAT GGTTTTCGCT GGTTATTTCT	5820
ACGCTATCGT TACCAGCGCT ATATGAGCTT GAAAGGATAG GAAATGCAAA AAACAGCTTT	5880
TATTTGGGAT TTAGACGGGA CTTTATTGGA CTCTTACGAA GCGATTTTAT CAGGGATTGA	5940
GGAGACTTTT GCTCAGTTT CTATTCCCTA TGATAAGGAG AAGGTGAGAG AGTTTATCTT	6000
CAAGTATTCG GTGCAAGATT TGCTTGTGCG GGTGGCAGAA GATAGAAATC TGGATGTTGA	6060
GGTGCTAAAT CAGGTGCGTG CCCAGAGTCT GGCTGAGAAG AATGCTCAGG TAGTTTTGAT	6120
GCCAGGTGCG CGTGAGGTGC TAGCTTGGGC AGACGAATCA GGAATTCAGC AGTTTATATA	6180
TACTCATAAG GGAACAACG CTTTACCAT TCTCAAGGAC TTGGGGGTGG AATCCTATTT	6240
TACAGAGATT TTAACCAGTC AGAGTGGCTT TGTGCGGAAG CCAAGTCCAG AAGCGGCTAC	6300
CTATCTGCTA GATAAGTATC AGTTGAATTC TGATAATACT TATTATATAG GGGATCGGAC	6360
TCTGGATGTG GAATTTGCCC AGAATAGTGG GATTCAAAGC ATCAACTTTT TAGAGTCTAC	6420
TTATGAAGGG AATCACAGGA TTCAAGCGTT AGCAGATATT TCCCGTATTT TTGAGACTAA	6480
GTGATAAAAA GATTGTGTCA GTTTTGTGAC AGAGACCTAA CAACTATTT CAAGTAACCT	6540
AGTTTGTTAC AAGGAATAGA CAGTTCTGTT AAATAGGCCC GAGAGGGCTT TTTTCTACA	6600
TTTTTTGTGT TATGATAGAC AGGTACTCAT TTGAAAGGAA TTTGAAAGAA TGAAGAAAAG	6660
AATGTTATTA GCGTCAACAG TAGCCTTGTC ATTTGCCCCA GTATTGGCAA CTCAAGCAGA	6720
AGAAGTTCTT TGGACTGCAC GTAGTGTGGA GCAAATCCAA AACGATTTGA CTAAAACGGA	6780
CAACAAAACA AGTTATACCG TACAGTATGG TGATACTTTG AGCACCATTG CAGAAGCCTT	6840
GGGTGTAGAT GTCACAGTGC TTGCGAATCT GAACAAAATC ACTAATATGG ACTTGATTTT	6900
CCCAGAACT GTTTTGACAA CGACTGTCAA TGAAGCAGAA GAAGTAACAG AAGTTGAAAT	6960
CCAAACACCT CAAGCAGACT CTAGTGAAGA AGTGACAAC GCGACAGCAG ATTTGACCAC	7020
TAATCAAGTG ACCGTTGATG ATCAAACGT TCAGGTGCA GACCTTTCTC AACCAATTGC	7080

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AGAAGTTACA	AAGACAGTGA	TTGCTTCTGA	AGAAGTGGCA	CCATCTACGG	GCACTTCTGT	7140
CCCAGAGGAG	CAAACGACCG	AAACAACCTCG	CCCAGTTGAA	GAAGCAACTC	CTCAGGAAAC	7200
GACTCCAGCT	GAGAAGCAGG	AAACACAAGC	AAGCCCTCAA	GCTGCATCAG	CAGTGGAAAGT	7260
AACTACAACA	AGTTCAGAAG	CAAAAGAAGT	AGCATCATCA	AATGGAGCTA	CAGCAGCAGT	7320
TTCTACTTAT	CAACCAGAAG	AGACGAAAAT	AATTTCAACA	ACTTACGAGG	CTCCAGCTGC	7380
GCCCGATTAT	GCTGGACTTG	CAGTAGCAAA	ATCTGAAAAT	GCAGGTCTTC	AACCACAAAC	7440
AGCTGCCTTT	AAAGAAGAAA	TTGCTAACTT	GTTTGGCATT	ACATCCTTTA	GTGGTTATCG	7500
TCCAGGAGAC	AGTGGAGATC	ACGGAAAAGG	TTTGGCTATC	GACTTTATGG	TACCAGAACG	7560
TTCAGAATTA	GGGATAAGA	TTGCGGAATA	TGCTATTCAA	AATATGGCCA	GCCGTGGCAT	7620
TAGTTACATC	ATCTGGAAAC	AACGTTTCTA	TGCTCCATTG	GATAGCAAAAT	ATGGGCCAGC	7680
TAACACTTGG	AACCCAATGC	CAGACCGTGG	TAGTGTGACA	GAAAATCACT	ATGATCACGT	7740
TCACGTTTCA	ATGAATGGAT	AAACCCGACT	TGATAACATC	ATTTTGACGA	ATGAGATCTA	7800
GCTTTCGTGA	TGGAAAGCGA	TTCTCGTTTG	TTTTTTCTTT	GTCATACTCT	TCGAAAATCT	7860
CTTCAAACCA	CGTCAGTTTT	ATCTGAAACT	TCAAAGCTGT	GCTTTGAGCA	ACCTGCGACT	7920
AGCTTCCTAG	TTTGCTTTTT	GATTTTCATT	GAGTATCAAT	TTGAATGGAA	AATGGAAAGT	7980
TATCATCTTG	TAATGAGTTA	AGCAACATTC	TTGCAATCTA	TTTTACTTTA	TATCACAATT	8040
AATTAGTCAA	ATATTGATAA	ATCAATAAAA	AGAGAGGGGA	AGAAATGCTA	GAGATTCAAG	8100
ATTTACTGTA	TCAACTCCGC	TTGTCTGAGC	AAGCGAGTAC	GCAATTGTTT	GAAAAAAGGC	8160
TTGGGATTAG	TTTGACACGG	TATCAGATTT	TACTGTTTTT	GCTGGAGCAT	TCTCCTTGTA	8220
ACCAAATGGC	GGTTCAGGAG	CGTTTGAAAA	TTGATCAGGC	TGCTTTGACA	CGGCATTTCA	8280
AAATTTTGGA	AACGGAAGGT	TTGGTGGAGC	GTCATCGTAA	TCCTGAAAAT	CAGCGGGAAG	8340
TGTTGGTAGA	GGCTGCGAAG	TATGCCAAGG	AGCAGTTAGT	GGTGAATCCC	CCTCTGCAAC	8400
ATATCAGGGT	TAAGGAAGAG	ATAGAAAAGTA	TCTTAACAGA	GTTTGAGAGA	ACAGAACTCA	8460
GCCGTTTATT	AAATAAATTG	GTTTTGGGTA	TTGAAAATAT	AGAAATTTAA	GGAGAAATAG	8520
ATGTCAATTA	TTTAAACAAC	GATCGTTGCT	TTGGAGCATT	TTTACATTTT	TTATTTGGAA	8580
AGTATTGCCA	CGCAATCAGA	TGCGACTAGT	CGTGTATTTA	ATATGGAAAA	GGAAGAATTG	8640
GCTCATCCGT	CAGTAAGTTC	ATTGTTCAAA	AATCAAGGAA	TTTATAAGGC	TCTGCTAGGA	8700
GTCTTTCTCT	TGTATGTCAT	TTATTTCTCA	CAGAATTTAG	AAATGTGAC	TATTTTGTGTC	8760
TTATTTGTGA	TTGGTGCTGC	GACTTACGGC	TCTTTAACAG	CGGATAAAAA	AATTATTTTG	8820
AAACAAGGTG	GATCAGCTAT	TTTGGCCTTG	ATTAGTATTT	TACTCTTTAA	ATACACTTGA	8880

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AGGTCGATTC TAATCTCGCT AATCCTTTTT AATCCAGAAT AAGGGAAATA TGTATACTT	8940
GTTTTTAAGA AAAAAGTCTC ATTGAATTGG TTTTGAGGAG TTAGAAATGA AAGTATTAGT	9000
GACAGGTTTT GAGCCCTTTG GAGGGGAAAA GGGCAATCCA GCTTTGGAGG CCATTAAAGG	9060
TTTACCAGCT GAAATCCATG GTGCTGAGGT CCGTTGGCTA GAGGTGCCGA CAGTTTTTCA	9120
CAAATCTGCT CAAGTATTGG AAGAAGAGAT GAATCGTTAT CAACCTGACT TTGTCCTTTG	9180
TATTGGGCAA GCTGGTGGA GAACTAGTTT GACACCTGAA CGAGTGACCA TTAATCAAGA	9240
CGATGCATGC ATTTCTGATA ACGAAGATAA TCAACCGATT GACCGTCCCA TTCGCCAGA	9300
TGGTGCTTCG GCCTACTTTA GTAGTTTGCC GATTAAAGCG ATGGTTCAAG CTATAAAAAA	9360
AGAGGGCTTA CCGGCCTCTG TTTCCAATAC GGCAGGGACT TTTGTCTGCA GCCATTTGAT	9420
GTATCAGGCT CTCTATTTGG TAGAAAAGAA ATCTCCATAT GTTAAGGCAG GTTTTATGCA	9480
TATTCCTTAT ATGATGGAAC AGGTGGTGAA CAGACCGACT ACTCCAGCTA TGAGTTTAGT	9540
GGATATTCGG CGAGGGATAG AAGCAGCAAT CGGCGCTATA ATAGAACATG GAGATCAGGA	9600
ACTCAAGTTG GTAGGCGGAG AAACCTATTG ATAGAAAAA GCTTGAGGGG AAAAACCTTC	9660
AAGCTTTTGG ACGTTTTTCG GCCAATACTG CTCGGTAAAA CATAATTTTA GTGCATTGGA	9720
TATAAGGTAG GAGTGAAAAA CTAGCAATGC CAAAGGTAAT CCAATTGAGG AAGTACCAAG	9780
GAAGAAGCTG TAAATCTAGG ACAAAGTGCT GGAACCTGTA GCCCTTCATA AAGGAACGGC	9840
TAGTTTTTAG GATTCGTCTT GGTGGGACCT GTCCTAGGTC TAGACTATAA CAGAGAAGAA	9900
ATCCACCTG TGAATAGGCA TAATACTGTG GAATATAGAG GATATTTCTT ACAATGATCA	9960
AGATGAGACT TGCAAGAAAG TAGAGTCCAA AGACCATGAG GAAACGCTCG GTTTCAACTG	10020
ATGAGAGATC TAGATTTGGA AACTCAGGAT GTAGGGTGAC GAATTTTTTG GCTAAAAAGC	10080
TACTATAAAA GAGGAGGTAA ATCCCAAGTA AATTAGGGAT ACTCCATAAA AAGAGATAGA	10140
AACGTTTGAG AAGTAGGGTC AAAAAGGTTT GAGAAAAGCG CTCCTCATCA AAGAGAGCTA	10200
GGCTGTTTTT TACAGATGGC TCCGTTTTAG AATCTTTCAT GAGTGTGAGT GTTGCATAGA	10260
CGGAACTGGT CAAAAGAATA GTCCCGATAA AGGAGACTAG TAGAGGAAAG AGGTAGGTTT	10320
GAAGTATTTG GCCAAGTATG CTGAAAAATG GCTGTTCTAA AACAGTCCCG TGGATCCGAG	10380
ATAAGGGATT AAGAAAACCA GATAAGATGA CCAGCATACT GGGAAAGATA TAGAGGAGAA	10440
AGAGACGGGG GTGTGTCAGC TGAAAATGTT TTGACTCCTG ACGAATTGTT TTAAATCAA	10500
TTTTTGATA GTTCATTCTC TTATTATACC ATAGTTCTTA TACATAGTTC GTGACAGTTC	10560
CTACTTTTTT TGATAAAATC ATACAGTGTG TCCTTGGGCA CACTGTATGA ACTGGGACTG	10620

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TCTTTCCCAG CTTCGGAGGT AAAAAATGTC AGATTCACCA ATCAAATATC GTTTGATTAA 10680
 GAAAGAAAAA CACACAGGAG CTCGTCTGGG AGAAATCATC ACTCCCCACG GTACCTTTCC 10740
 GACACCTATG TTTATGCCAG TTGGGACACA AGCCACTGTC AAAACTCAGT CACCTGAAGA 10800
 ATTGAAGGAG ATGGGTTCGG GAATTATCCT ATCAAACACC TATCATCTCT GGCTTCGCCC 10860
 TGGAGATGAA CTCATTGCAC GCGCTGGTGG TCTCCACAAG TTCATGAATT GGGACCAGCC 10920
 TATCTTGACA GATAGTGGTG GTTTTCAGGT TTATTCTTTA GCAGATAGCC GTAATATCAC 10980
 AGAAGAAGGA GTAACCTTTA AAAATCATCT AAATGGTTCT AAGATGTTCC TATCCCCAGA 11040
 AAAAGCCATC TCTATTCAGA ATAATCTGGG TTCAGACATC ATGATGTCCT TTGATGAATG 11100
 TCCTCAGTTT TATCAACCTT ATGACTACGT TAAGAAATCG ATCGAGCGTA CCAGCCGTTG 11160
 GGCTGAGCGT GGTTTGAAGG CTCACCGTCG TCCACATGAC CAAGGTTTGT TTGGAATTGT 11220
 GCAAGGTGCA GGATTTGAAG ACCTTCGCCC CCAATCAGCT CATGATCTTG TCAGCATGGA 11280
 TTTCTCAGGC TACTCTATCG GTGGTTTGGC AGTGGGAGAA ACCCATGAAG AGATGAATGC 11340
 GGTCTTGGAC TTTACAACTC AACTGCTGCC TGAAAATAAA CCTCGTTATC TGATGGGTGT 11400
 GGGAGCGCCA GATAGCTTGA TCGATGGGGT CATTCTGTTG GTGGATATGT TTGACTGTGT 11460
 CTTACCGACT CGAATTGCTC GTAACGGGAC TTGTATGACC AGTCAAGGAC GTTTGGTTGT 11520
 GAAAAATGCC CAGTTTGCTG AGGACTTTAC GCCACTGGAT CCTGAGTGTG ATTGCTACAC 11580
 ATGTAATAAC TATACACGCG CTTACCTTCG TCACCTGCTC AAGGCTGATG AAACCTTTGG 11640
 TATCCGCTTG ACTAGCTACC ACAATCTTTA CTTCTTGCTT AACCTGATGA AGCAAGTGCG 11700
 ACAAGCCATC ATGGATGACA ATCTCTTGA ATTCCGTGAG TATTTTGTGG AAAAAATATG 11760
 CTATAATAAG TCAGGACGTA ATTTCTAAAA TGGAATTGAT ATAAAAAAT CCTAAGTTTT 11820
 CTCTTAGGAT TTTTCTTCTT TTTTGTATAG AATAAAGTGT ACAATGAAAG GAAGAATAAA 11880
 CTCGTATGCG CATTAAATGG TTTTCTCGA TTAGG 11915

(2) INFORMATION FOR SEQ ID NO: 97:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 9069 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 97:

GAGAGGGCAA CAGTTCTATC GCTTCAAATT TTTTCTGGT TTGCAGATAT TCAAGAATCG 60
 GGAGTTTTC TATAGTATTC GGCAGATTTA TTACAGCCAA GCATCTCAAA AATACGGACA 120

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GCATCCTCCA	TCTTTTCTG	GCCTTCCTTG	ACTCTACCTT	GCTTGCTATC	AAGGAGACCT	180
TCTGCCCACA	GATAACAAT	TCGGAAATAG	GTCTCATTTT	CCTTGTAGAA	ATGCTCTTCG	240
ATAACACGTT	TAAAATAATA	GGCATTGGTA	AATTCTTCAC	ACTCAATACT	AGCTAAAAAG	300
CCATTCAATA	GTATAGTATG	AAAAAGGTTT	CGATTGCCAG	ACATTTCCAT	TAGAAAATCA	360
GATTTACGTA	CCATTTCTCG	TACATATCTA	GTAAAAAGAG	AAACAGATAA	AAATGGAGAA	420
CTGACTGAAA	ATAAATTGAG	TTCATAGATT	CCCCAGATCT	CGGTAGAAAA	CAAATAATCA	480
TGAAGGACTT	TTCCTTCCTC	TGCTGTTAAG	TCTACCCTTT	CATCTATGCT	CTTCATATAA	540
GACTTGATAA	TAATGGCATT	TAGAATATGT	TTCTGTTTGT	TGTGAGAATG	GGCATGCTTT	600
TATACTCCCT	GCGATATAAG	TCCTCAAGAG	GTGCTATATT	CTTTGGTTCC	AAGACATCTG	660
TAATTTCTTT	TCTCAACTCA	GAATCTGTAT	CATACTGGAA	ACCTCTTGCC	AGAAAGAGGA	720
TCTCCTCCAC	ACTGGCAGAT	ATATTTTCCA	GAGCAAATAG	AACTTTTCC	ACCGAAAGCT	780
CACTCTGACC	TGTTTCAAAA	CGGGACAACA	TAGACGGCGA	AAATTGTCCT	CCGGTTGCTT	840
GTCTCAGTGA	GATATTTCTT	GACTCTCGTA	ATTGTCTAAA	GACTTTTCCA	ATCTGCTCCA	900
TAGACTTCCC	CTTGATTCCG	TATTTTCTTC	ATTTTATCAT	ATTTTTCAGA	AAATTCATCA	960
AAACTTGCC	AAATTGTCAG	AATTATGAGA	AAATAGAGGA	TATTTATCAC	GTGGAGGGAC	1020
TGCTATGAGA	GACGATATCA	AAATCAATGA	CCGTGCTTTG	GCCTTGCAAG	ACCAAATTAT	1080
CGAAAAACTA	GAGAAAGTTT	TTGATACAGA	TGTGGAATTG	GATGTTTACA	ATCTAGGTCT	1140
GATTTATGAA	ATCAATCTGG	ATGAAACGGG	GCTCTGCAAG	ATTGTCATGA	CCTTCACCGA	1200
TACTGCCTGT	GATTGCGCCG	AAAGCCTGCC	TATTGAAATC	GTGGCAGGTC	TGAAACAAAT	1260
CGAGGGTATC	AAAGATATCA	AGGTGGAAGT	TACCTGGTCG	CCTGCTTGGA	AAATCACACG	1320
AATCAGTCGC	TATGGCCGTA	TTGCCCTTGG	ACTACCACCT	CGTTAAGCAG	ACCAATCACT	1380
TTTAAAGATG	AAAATCAAAG	GGCAAAC TAG	AAAAC TAGCC	GCAGGTTGCT	CAAAACACTG	1440
TTTTGAAGTT	ATGGATAGAA	CTGACGAAGT	CAGCTCAAAA	CACTGTTTTG	AGGTTGTGGA	1500
TAGAACTGAC	GAAGTCAGCT	CAAAACACTG	TTTGAGGTTT	GTGGATAGAA	CTGACGAAGT	1560
CAGCCCCAAA	CACTGTTTTG	AGGTTGTGGA	TAGAACTGAC	GAAGTCAGTA	ACCATACCTA	1620
CGGCAAGGCG	ACGTTGACGT	GATTTGAAGA	GATTTTCGAG	TATGAGTTTA	TTTTTTACCT	1680
GACTTGTCCA	TATTCAGAA	GTCTGTCACG	GCTCCGCGTG	AAGCAGATGA	TACGATGTGG	1740
GCATATTTAC	CGAGGACACC	ACGGCTGTAA	AGTGGTGGCA	AGGTTGTTTC	TGCCTTGCCT	1800
TTTTCAAGTT	CTTCTTCGGA	TACGGCCATA	GAAATTTCTT	TGGTATCTTG	GTCAACCGTA	1860

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ACGATATCGC CGGTACGGAG ATAGGCAATT GGTCCACCAT CCTGAGCTTC AGGAGCGATA	1920
TGTCCAACAA CCAGACCATA AGTACCACCA GAGAAACGTC CGTCCGTCAA GAGGGCCACC	1980
TTATCTCCCT GACCTTTACC AACAATCATT GAAGAAAGTG ATAGCATCTC AGGCATACCA	2040
GGACCACCTT TAGGTCCAAC AAAACGAACA ACGACTACAT CGCCATCAAC GATTTTCATCT	2100
GTCAGAACGG CCTGAATCGC ATCTTCTTCT GAGTCAAAGA CCTTAGCTGG CCCAACGTGA	2160
CGACGCACTT TAACACCTGA TACCTTGCCA ACTGCACCGT CAGGAGCAAG GTTCCCGTTC	2220
AAGATGATAA GCGGACCATC CGCACGTTTT GGATTTTCAA GTGGCATGAT AACTTTTTGG	2280
CCTGGAGTCA AGTCTGCAA GTCAGCCAAG TTTTCAGCTA CAGTCTTACC AGTACATGTG	2340
ATGCGATCTC CGTGAAGGAA ACCATTTGCC AACAAATACT TCATAACCGC AGGGACACCA	2400
CCGACTTCGT AGAGGTCTTG GAAGACATAC TGACCAGATG GTTCAAGTC GGCCAAGTGA	2460
GGCACACGTT CTTGAATCGT ATTGAAGTCC TCAAGTGACA AGTCAACATT TCGGGCATGG	2520
GCAATGGCGA GCAAGTGAAG AGTGGCGTTT GTAGAACCAC CGAGAGCCAT CGTTACAGTG	2580
ATAGCATCTT CAAAGGCTTC ACGAGTCAAG ATATCTGATG GTTTGAGACC AAGTTCCAAC	2640
ATCTTAACAA CAGCACGTCC TGCTGCTTCG ATATCTTCTT TCTTATCAGC TGATTTCAGCT	2700
GGGTGAGAGG ATGACCCTGG CAAACTCATC CCTAGAACTT CGATAGCAGT TGCCATGGTA	2760
TTAGCAGTAT ACATACCACC ACAACCACCA GGGCCAGGGC AGGCATTACA TTCAAGACGT	2820
TTACAGTCCT CAGCTGTCAT GTCACCGTGG TTCCATTTTC CGATACCTTC AAAGACAGAA	2880
ACCAAGTCGA TATCTTTACC ATCAAGATTT CCCGGTGCAA TAGTTCCACC ATAGGCGAAA	2940
ATAGCTGGGA TATCCATATT AGCAATAGCA ATCATAGATC CAGGCATGTT CTTGTACAG	3000
CCACCGATAG CGACGAAGGC ATCCACGTTG TGACCACTCA TAGCCGCCTC GATGGAGTCC	3060
GCGATGATGT CACGAGATGT TAGAGAGAAA CGCATACCAG GCGTTCCCAT AGCGATCCCG	3120
TCCGCTACGG TAATGGTTCC AAACTGTACA GGCCAAGCGC CTGCAGATTT GACACCTTCT	3180
TTAGCCAGTT TCCCGAAATC ATGCAAGTGA ATGTTACATG GTGTATTTTC CGCCCAAGTC	3240
GAAATCACTC CCACAATCGA TGTTTCAAAG TCCTTATCTG TCATACCAGT CGCACGAAGC	3300
ATAGCACGGT TAGGTGATTT AACCATGCTG TCATAAATGC TACTGCGGTG ACGTTTATCT	3360
AATTCAGTCA TCTTATCCCT CCCATTTTCAG TTTTACTAT TATAGCACAA TTTTCGCATG	3420
AAGAACAGAA TAAAATTCTT GAATTTTCAG AAAATTCTAT ACACATGTGA AATATTTAAA	3480
ATTAAAAACA ACAAAGCGGA TTAGTGCACT TTCTGATGAC CAGAATATGC TTTTAAATCC	3540
GCTTTCTTTA AATAACGTAC TGTAATTTTT ACAGAAATTC TTTCAAATAA GTGTATTTAA	3600
CATCTATCTT GCATTATAAA TTTCTAGAAC CTCTCTTTT ATATTGATT CACTCAAACC	3660

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ATACTCATTA AGAAGATAAT CCATTTTCCC TACTTGACCG AATCTTTCTT GAACACCCAT	3720
CCGATGAATT TTTGTTATTC CATCATCAGA GAATAATTCA CATAAAGCAC TGCCAATTCC	3780
ACCTATCTGA TTGTGGTTTT CTACAGTAAA TATAGTTTTT CCACTTAACA TTGTTTTTAT	3840
CTGTTCTGGT ATCGGTTTGA TTCTAAATAA ATCTATCACA CCTACTGAAT AACCTAATTT	3900
AGACAGTTCA TCTGCAACTC GAATACTTGG AGCAACCATT ATGCCAGAAG CAACGATTAC	3960
AAGATCTTCA CCATGCCTTA ACTCAATGTA GCCTTTAGAA AAATCTTCTC CACCTTGATA	4020
CACAGGAACT GGAGCTTTTC TAATTGTTTCG AATATATTTT AGTCCTTTTA AGTCTAATGT	4080
CTGGTTCAAT ATTTACGAA ATTGGATATC ATCAGTTGCT TCGAAAATGA TTGATTAGG	4140
AATTAAACGT AACAATCCAA TTTCTTCAAA TGGCATATGT GTTCCACCAT TCATCTCTGC	4200
CGTTACTCCT GCATCTGATC CAATCACAGT GGCATCCAAT TGTGCGTATC CAAGAGAAAT	4260
AAATAATTGA TCAAATACTC TTCGTGAAGC AAAAGGACCA AATGTATGAA GATAAGGTCT	4320
AAACCCCTGA ATAGACAAGC CTGCTGCAAG GCCGACCATT TCTGCTTCCA TAATCCCAAC	4380
ATTCACATAA CGGTCTCCAA AGTCCTTTTC AAGATTATTA GTAGCCATCG AACTTGACAA	4440
ATCGGCTTCT AAGACTACTA TATCAGAATC ACTTTGATTA GCCTCTAAAA GGAAGTCTCT	4500
ATATACATGC CGTAATTCTT TCGTACTTCT CATCATCTCG TTTCTTCCAA TTCCTGACTT	4560
AATCTTTCTA CAACTGAAGT TAACATTTGT TTCTCCTCTA CAGTAGGGCG AAGATGATGA	4620
TTGGATTTCA TTTCTTCCAG CTCTTGAACC CCTTGACCTT TAATAGTATC TAATACAATG	4680
CACCTAGGTG ATGAATTATT TGACTGTTTT AATTGGACAA TCCCTTCATA AATTTCTCTA	4740
ATATCTGAAC CCTTGACCCT AATGGATTCA AATCCAAATG CTGAAAATTT TTCTACGAAA	4800
TCACCTGGAT TACAAATATC CTTTGTAATA CCATCTAATT GTTTTTTGTT ATCATCAACA	4860
AATACAATTA AGTTGGATAA CTGTTGATGA GAAGCAAACCT GTATAGCCTC CCAACATTGT	4920
CCCTCATTTA ACTCACCATC TCCAACAATA GCGTAAGTAT AAAAGGGACT CTTTCTTATT	4980
CTCTGACCAT ATGCAAGTCC AGTTGCAACA CTAATTCCTT GTCCTAAAGA GCCCGTTGTC	5040
ATATCTATGC CTGGCGTTAG ATTTCTATCA GGATGAGACG GTAATTTGGT TCCATTTGTA	5100
TTTAAAGAAT ATAAGAATTC TTTGTCAAAG AAACCATTCA AATAGAGTGT ACTGTATAGA	5160
GCTGGTCCTC CGTGACCTTT TGATAATATG AAATAATCTC TATCTCGTGC TGCAAATATT	5220
TCTGGAGTCA TTGGCATTAT TTCACCATAA AGCACCCTA AAACCTTCTAC GATAGACAGA	5280
CTTCCTCCGT AATGTCCGAA TCCAAGATGA TTCAATGTTT TAAGAGTATT TAATCGGATG	5340
TTAGTCGCAA ATTTTCTTAA CCCATCTTCT CTATTTTAC TTAATAATCAT CCCTTATTCC	5400

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TCCGTTGCAG ATGGCTTTTT AATAAAGGAT ACTCCAAACA TAACTGCTAG AATAAGAACA	5460
AGACCAATCA CAATGCCTGC TTGTGAGCCA AATTGATTTA ACATTCCTAA AATAATTCCT	5520
GATAGACCAA AATCTGCATC TGAGAAAGTT GATCCTTGGA AACCAAGTCC TCCCAAACT	5580
GGCATTAAAA AGACTGGAAG AAACTGATT AAAATACCTT GTAAAAATGC TCCAATAGTG	5640
GCTCCACGAA CACCACCAGA TGCATTCCCA ATGACACCTG CAGTCGCTCC ACAGAAGAAA	5700
TGAGGCACAA CACCTGGTAA GATAACAACC GTTCCTGAAG CAATCATAAT TACCATACTT	5760
ACTAAACCAC CAACAAAAC AGAGATAAAT CCAATTAGAA CTGCATTGGG TGCATAAGTA	5820
TAAACAATCG GACAATCCAA AGCAGGTTTT GAATTAGGTA CAAGACGCTC TGAAATACCT	5880
TTAAAGGCTG GAACAATTC GCCCAAAATA AGGCGAACAC CTGCTAAAAT AACAAATACC	5940
CCTGCTGCAA ATTGACCTGC TAATTGTAAA GCATAAACTA GACCACTTGT ACCACTACTG	6000
ATTTCTTTTT CTATATATTC TGACCCTGCA AAGATAGCTA CAATAATGTA AATAACTGCC	6060
ATGGATAAAG TAATACTAAC AGTACTATCA CGTAAAAAG CTAAACTCTT TGGAAATTTA	6120
ATGTCCTCTG TTGATTTTGA TTTGTCACCG ATAAGGCTAC CAGTAAAACC ACTCAACCAA	6180
TATCCCAAAG AACTGAAATG ACCTAAAGCT ACCTTGTCAT TTCCAGTTAA TTGAACCATA	6240
TATTTTGTGA CAAATGCTGG GGAAATACTC ATAATAATAC CGAGTGCTAA TCCTCCTAGT	6300
AAGATGAGAG GCAAGCTAGT AAAGCCAGCA ACTGATAAAA TGACCGCAAT CATAATGCC	6360
ATATATAGAG TGTGGTGCCC TGTAAAAAA ATATATTTAA ATCGAGTAAA ACGAGCGATT	6420
AAGATATTGA ACACCATGCC TGCAACATA ATCATTGCAG TAGCTGAGCC ATATGTTGTT	6480
AAAGCTACAG CTACAATTGC TTCATTATTC GGCACAACGC CAGATAAATG AAAAGCATGC	6540
TCAAACATGG TACCAAATGG ATTTAAAGAA TTTTGTACAA TTCCTGCACC ACCAGATACA	6600
ACTAAGAAAC CAACAAAGGT CTTAATTCCA CCTTTAATAA TATCAGGTAA TTTCTTCTTC	6660
TGAAGAACTA ATCCTAAGAT TGCAATTAAA GCTACTAAAA TAGCTGGTGT ACTAACAATA	6720
TCCAATATGA ACTTCATCAT GACGCTAGCC TCCTATATAA GTCCTTTTTT TTCACAAAT	6780
TTAGTAATTA ATTCTCGTAG TTCATCCATA TCAATAATAC TATTTAAGAT ACGAACATCT	6840
CCAAGATGAC TAGCTGAATC AGCTAGATCA CGACCAACAA TCCAAATATC AGCTGCATTT	6900
GGATCTGCTC CACCTAAATC ATAATGTTCA ACTTCTACAT CCGAAACATT CAAATCACTC	6960
AATACAGATT CAATATTCAT CTGTACCATA AAACCTGAAC CTAATCCTGA ACCACAAGCT	7020
GTACCAATTT TTAACATTAT CTAATCCTCC TGTTTAATTA TCATTTTAAT GTCATCATAG	7080
TTTTTTGATG ATATTAAAGT TTGAACATGA TTTTATCTC TTAAATTTGT TGTAAATGT	7140
GACAAAGCCT TTAAATGACT CTCATTATCA ATGGCTGCAA TACAAATCAA CAATCTTACC	7200

745

TCTTGTTCTG GATTATCCAA TAAATAAATC GGTTCCTCCA AAACCTAACAT TGACATTCCCT	7260
ATTTTCATTCA CACCTTCATC TGGCCGAGCG TGAGGAATTG CTAATCCCTT CCCTAAATTA	7320
ATAAAAGGTC CAAACTCTTC TACTTTTTGA ATCATTGCCT CAGGGTAGTT CTCAGTTATC	7380
TTATCTTGAT CCAAAGCGG TTTAGCTGCT AAACGAATCG CCTCCTCCA TCCTAATTTT	7440
TGCGAACTAA CCTGATAGGT TTCTTTGGTA ATAAGTTGTT CTAGCACTGG TACAATTTCC	7500
TTTCTATCAT TTTTTGGTA AAGATAATTC TTAAACGCCA ATCTTAATTC CAATCTTGT	7560
GTAATAATTC CATATCTTTT GACAATATTC AGGATTTGTT CAATCTCAA ATCTCCATAC	7620
TCTAAATTCG GAAATCTTT TAACACTAGT TCTACTAGTT GTATTGCTTG CTCTTCAGTC	7680
ATCATAACCG AAACCTAGATA ATTTGGCTTT TCTGTCTCCA CCTTTATGGT AGAAAAAACC	7740
ATATCATAGT CACTACTAGC TTTCACCTGT AAATCATCAA TCTTTGAGGT TCCTATAAAC	7800
TCAATTTGAG GAAATAATGC TAATAGATTC TCTTTTAACT TCAATGAAGA ACTAACACCA	7860
TTAGGACAAA TGATTGCTGC TTTATACCAT TTTTGAGGCA AAGTATCTGC TTTCTTTAAA	7920
TAACCTCCGA AATGGATAAC AAAATATGCT GTTTCATAT CAGGTATGGG ATTGTCAATA	7980
GCGTCCATCA AGGGCATCAA AGAATCTTTG ACTAATTCAA ATAAATCAGG ATAATGTTCT	8040
TTAACATGCA ATACATATTC ATTTGAACTA GGTAGGCCGA ACTTTAATCT ATAGTAAGCC	8100
GGTATAAGGT GGCGGCGAAG ATTTTCTCTC AATCCTTCCC TTTGTTTAAA ATGTAACAAA	8160
GAAATATCTT CCATTCTACT TATAATAGCC TCTGTTAATT GATTAAAGTA AACCGGAGCA	8220
ACATCTACTT CACCTTCAA GCAACTTGAT AATAAAACGG TGATATAGCG ATAATCATCC	8280
TCAGAAAACA CCGTATCTAT AATTCCTAAA TCAACCACTG TATCCAATAA AATAGTGGTT	8340
ATATCTTGAA TAACAGGAGA TACTAATGTC TCTGAAAGAC ATACTCTTTC AACATCCCTT	8400
TGATACCTAC ACAGAATGAA TACTAAACCG AAAAGGTAAA CTTTTAATTG ATTAACAATA	8460
GGTACTAGCT GTAGCTTCTC ATAATAATCT TTAACCTACCT GATCAATCAA ATCATAAGTT	8520
AATGAATACC CCCAACTGGA TAAAACATAA TCCAAACCCC AAATCCCTAT GGAGGATTCC	8580
AGCAACTCAC TAACCATTTG AAAAGCTAAG CGGTGCTTAT TCCACTCTGA ACCGTGTAAA	8640
GTATAACCTT TGCTCTACT GTACCCTAGC TCCAAATCAT TATCTAACAT AATCTTTCTT	8700
AATGATTGAA TATCAGATAA GGTGTATTTC TTACTTACTT TCAAAAAGTC TTGGTAATGA	8760
CTATTCGATA TAAATCTAA TCGGCAAAAA GTGTAAAGAT AGATTAAAGC TAAGCGAGTC	8820
GACTTTGGTA AAACCAATTC ATCCGACTTA ATAATATCTG TCAAAGACTG CTTCGTACGA	8880
TTTGATAAAC TATAGCGACC TTGCTTTTTA TCCAGCACTA TCCCTTTATT AGCTAGATAA	8940

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GGCACTAAAT AATCTATTCC TTCTTTGACT TCCTTTATAG GTAAGCTCAC CTTAACAGAT 9000
AATTCATATA ACGATAGCTC ACAATGATCC ATCAAAGTCA TCAAAATAAC TAGTGCTCTA 9060
TAATCAAAC 9069

(2) INFORMATION FOR SEQ ID NO: 98:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 8654 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: double
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 98:

CGAGACAACA AGATGAAGAA AAATTTGCCC TATCGTTTGT GGCGCTTGCA AGTGTAGCAC 60
TTCTTGCAGC CTGTGGAGAA GTGAAGTCTG GAGCAGTCAA CACTGCTGGT AACTCAGTAG 120
AGGAAAAGAC AATTAAAATC GGGTTTAACT TTGAAGAATC AGGTTCTTTA GCTGCATACG 180
GAACAGCTGA ACAAAAAGGT GCCCAATTGG CTGTTGATGA AATCAATGCC GCAGTGGTAT 240
CGATGGAAAA CAAATCGAAG TAGTCGATAA AGATAATAAG TCTGAAACAG CTGAGGCTGC 300
TTCAGTTACA ACTAACCTTG TAACCCAATC TAAAGTATCA GCAGTCGTAG GACCTGCGAC 360
ATCTGGTGCG ACTGCAGCTG CGGTAGCGAA CGCTACAAAA GCAGGTGTTT CATTGATCTC 420
ACCAAGTGCG ACTCAAGATG GATTGACTAA AGGTCAAGAT TACCTCTTTA TTGGAACTTT 480
CCAAGATAGC TTCCAAGGAA AAATTATCTC AACTATGTT TCTGAAAAAT TAAATGCTAA 540
GAAAGTTGTT CTTTACACTG ACAATGCCAG TGAATATCCT AAAGGGATTG CAAAATCTTT 600
CCGCGAGTCA TACAAGGGTG AAATCGTTGC AGATGAAACT TTCGTAGCAG GTGACACAGA 660
CTTCCAAGCA GCCCTTACAA AAATGAAAGG GAAAGACTTT GATGCTATCG TTGTTCTTGG 720
TTACTATAAT GAGGCTGGTA AAATTGTAAA CCAAGCGCGT GGCATGGGAA TTGACAAACC 780
AATCGTTGGT GGTGATGGAT TCAACGGTGA GGAGTTTGTA CAACAAGCAA CTGCTGAAAA 840
AGCATCAAAC ATCTACTTTA TCTCAGGCTT CTCAACTACT GTAGAAGTTT CAGCTAAAGC 900
TAAAGCCTTC CTTGACGCTT ACCGTGCTAA GTACAATGAA GAGCCTTCAA CATTTCAGC 960
CTTGGCTTAT GATTCAAGTT ACCTTGTAGC AAACGCAGCA AAAGGTGCTA AAAATTCAGG 1020
TGAAATCAAG AATAACCTTG CTAAAACAAA AGATTTTGAA GGTGTAAGTGT GTCAAACAAG 1080
CTTCGATGCA GACCACAACA CAGTCAAAAC TGCTTACATG ATGACCATGA ACAATGGTAA 1140
AGTTGAAGCA GCAGAAGTTG TAAAACCATA ATAGAAAAAT GTTGAAATAG GGAATGAGCC 1200
TTTGACTCAC TCCCTGTTTC GATATTTAAT ACTCTTCGAA AATCTCTTCA AACTGCGTCA 1260

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ACGTCGCCTT GGATTATATA TGTGACTGAC TTCGTCAGTC TTATCTACAA CCTCAAAGCA	1320
GTGCTTTGAG CAACCTGCGG CTAGTTTCCT AGTTTGCTCT TTGATTTTCA TTGAGTATAA	1380
GAACCTATCA AAAAGTGAGG GAAAACCTC GGAATTATAA ATAGAAAGAG TGAATCTTAT	1440
GCTCCAACAA CTCGTAAATG GTTTGATTCT AGGTAGTGTT TACGCGCTGT TAGCCCTAGG	1500
ATATACCATG GTTTACGGAA TTATCAAGCT CATCAACTTC GCCCATGGTG ATATTTATAT	1560
GATGGGAGCC TTTATCGGTT ATTTCTTGAT CAATTCTTTC CAAATGAATT TCTTTGTAGC	1620
GCTTATTGTA GCTATGCTAG CGACAGCTAT TCTTGGTGTC GTGATTGAGT TTCTTGCTTA	1680
CCGACCTTTG CGCCACTCTA CTCGTATTGC TGTTTTGATT ACGGCTATTG GGGTTTCTTT	1740
CCTATTGGAG TATGGAATGG TCTATCTGGT TGGTGCCAAT ACCCGTGCCT TCCCTCAAGC	1800
GATTCAAACA GTTCGATATG ATTTGGGACC AATTAGCTTA ACAAATGTGC AGTTAATGAT	1860
TTTGGCCATT TCCTTGATTT TGATGATTTT GTTACAAGTC ATTGTCCAAA AGACTAAGAT	1920
GGGGAAGCC ATGCGTGACG TATCAGTAGA TAGCGACCGC GCGCAATTGA TGGGGATCAA	1980
TGTAAACCGT ACGATTAGCT TTACCTTCGC TTTGGGTTCT GCTCTTGCGG GTGCGGCTGG	2040
TGTTCTGATT GCTCTTTATT ATAACCTCTT TGAGCCTTTG ATGGGGGTTA CTCCAGGTCT	2100
TAAATCTTTC GTTGCCGCAG TACTTGGTGG TATCGGAATT ATTCCTGGTG CGGCTCTTGG	2160
TGGCTTTGTG ATTGGTCTAT TGGAAACCTT TGCGACTGCC TTTGGGATGT CAGATTTCCG	2220
TGATGCCATT GTTTATGGAA TCTTGTTGTT GATCTTGATT GTCCGCCAG CTGGTATCCT	2280
TGTAAGAAT GTGAAAGAGA AGGTGTAAAC GATGAAGGAA AATTTAAAAG TTAATATTCT	2340
ATGGTTACTC CTTTGTAG CTGGCTATAG CTTGATTAGT GTACTGGTTT CAGTCGGAGT	2400
ACTTAATCTA TTCTATGTAC AGATTTTACA ACAAATTGGA ATTAATATTA TTTTGGCTGT	2460
TGGTCTCAAC TTAATCGTTG GTTTTTCAGG ACAATTTTCA CTTGGTCATG CTGGTTTCAT	2520
GGCGATTGGT GCCTATGCAG CAGCTATTAT TGGTTCTAAA TCACCAACCT ACGGTGCCTT	2580
CTTTGGAGCT ATGCTTGTAG GGGCTTTGCT TTCAGGAGCA GTTGCCTTAC TTGTCGGCAT	2640
TCCAACCTTG CGCTTGAAGG GGGACTATCT TGCGGTAGCA ACTCTGGGTG TTTCTGAAAT	2700
TATCCGTATC TTTATCATCA ATGGTGGAAG CCTTACAAAT GGTGCGGCAG GTATCTTAGG	2760
GATTCCTAAC TTTACAACCT GGCAAATGGT TTACTTCTTT GTCGTGATTA CAACCATTGC	2820
AACCTTGAAC TTCTTGCCTA GCCCAATTGG TCGTTCAACC CTCTCTGTTT GTGAAGATGA	2880
AATCGCTGCT GAGTCAGTTG GGGTTAATAC GACTAAAATT AAAATCATCG CTTTGTCTT	2940
TGGTGCCATT ACTGCAAGTA TTGCTGGGTC ACTTCAGGCA GGATTTATCG GGTCTGTTGT	3000

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ACCGAAAGAT TACACCTTCA TCAACTCAAT CAACGTTTTG ATTATTGTTG TATTTGGTGG	3060
ACTCGGTTCC ATTACAGGTG CGATTGTTTC GGCTATTGTT CTGGGAATTT TGAATATGCT	3120
TCTCCAAGAT GTTGCTAGTG TCGGTATGAT TATTTACGCT TTGGCCTTGG TATTGGTAAT	3180
GATTTTCAGA CCAGGTGGAC TCCTTGGAAC ATGGGAACTG AGCCTATCAC GTTTCCTTAA	3240
AAAATCTAAG AAGGAGGAAC AAAACTAATG GCATTACTTG AAGTAAAACA GTTAACCAAA	3300
CATTTTGGTG GTCTAACAGC TGTTGGAGAT GTGACTCTTG AATTGAACGA AGGGGAACTG	3360
GTGGATTAA TCGGTCCAAA CGGAGCTGGG AAAACCACCC TTTTCAACCT TTTGACCGGT	3420
GTTTATGAAC CAAGCGAGGG AACAGTAACC CTAGATGGTC ACCTTTTGAA TGGGAAATCA	3480
CCTTATAAGA TTGCCTCTTT GGGACTTGGA CGTACTTTCC AAAATATCCG TCTCTTTAAA	3540
GATTTAACAG TTTTAGATAA TGTTTTGATT GCTTTTGGA ACCATCACAA ACAGCATGTT	3600
TTTACTAGTT TCTTACGCTT ACCAGCTTTT TACAAGAGTG AAAAGAATT AAAGGCTAAA	3660
GCTTTGGAAT TGTTGAAAAT CTTTGATTTA GATGGTGATG CAGAGACTCT TGCTAAAAAT	3720
CTTTCCTACG GACAACAACG TCGTTTGGA ATTGTTCTGT CCCTTGCTAC GGAACCTAAA	3780
ATTCTCTTCT TAGATGAACC AGCAGCAGGT ATGAACCCAC AGGAAACAGC CGAATTGACT	3840
GAGTTAATTC GTCGTATCAA AGATGAGTTT AAGATTACAA TCATGTTGAT TGAACACGAT	3900
ATGAATCTGG TCATGGAAGT AACAGAACGT ATCTACGTAC TTGAATATGG CCGTTTAATC	3960
GCTCAAGGAA CTCCAGACGA AATTAAGACC AATAAACGCG TTATCGAAGC TTATCTAGGA	4020
GGTGAAGCCT AATGTCTATG TTAAAAGTTG AAAATCTTTC TGTGCATTAC GGTATGATCC	4080
AAGCAGTTCG TGATGTAAGC TTTGAAGTTA ATGAAGGAGA AGTTGTTTCC CTTATCGGTG	4140
CCAACGGTGC AGGTAAGACA ACTATTCTTC GCACCTTGTC AGGTTTGGTT CGACCAAGTT	4200
CAGGAAAGAT TGAATTTTAA GGTCAAGAAA TCCAAAAAAT GCCAGCTCAG AAAATCGTGG	4260
CAAGTGGTCT TTCACAAGTT CCAGAAGGAC GCCACGTCTT TCCTGGCTTG ACTGTTATGG	4320
AAAATCTTGA AATGGGAGCT TTCTTAAAGA AAAATCGTGA AGAAAATCAA GCTAACTTGA	4380
AGAAGGTTTT CTCACGCTTT CCTCGTCTTG AAGAACGGAA GAACCAAGAT GCAGCCACTC	4440
TTTCAGGGGG GGAACAACAA ATGCTTGCCA TGGGACGCGC CCTCATGTCA ACACCAAAAC	4500
TTCTTCTTTT AGATGAACCA TCAATGGGAC TTGCCCAAT CTTTATCCAA GAAATTTTGT	4560
ATATCATTCA AGATATTCAG AAGCAAGGAA CAACGGTCCT CTTGATTGAA CAAAATGCCA	4620
ATAAAGCACT TGCAATCTCT GACCGAGGAT ATGTACTGGA AACAGGGAGA ATCGTCCTAT	4680
CAGGAACAGG AAAAGAACTC GCTTCATCAG AAGAAGTCAG AAAAGCATAT CTAGGTGGCT	4740
AAAACAATCC AGTGGATTGT TTTAGTCGGC AGATGGAGAT TACGAAGTAA TCATCAATAT	4800

AGTCCGGGGG ACCTTTTTAG TCGGTAGATT GAGATTGCAA ACAAATCTGC ATCTACATTG	4860
AAAGCTTAAT TTCTAATAAT TGAAAAATC GAATGAAAAA TTTCTTACCT TCATTCACAG	4920
AGCTCGATTT CAGAGCTCTT TTTGCTAGCT TATTCATACT TTTCTGAATT TCGAAAAAGA	4980
AATGTAAGCG TTTGATAGAT TTACAAAAAG ATTGTATAAT AGGGATAAGA ATAGAAAAGG	5040
AGAAGTCTCA TGGCAGTTAA AGATTTTATG ACCCGCAAGG TAGTTTATAT TAGTCCAGAT	5100
ATAACAGTAT CTCATGCAGC AGATTTGATG AGAGAGCAAG GTTTGCACCG TCTGCCTGTT	5160
ATCGAAAATG ATCAATTAGT TGGTTTGGTG ACTGAGGGAA CCATTGCACA AGCAAGTCCA	5220
TCTAAAGCAA CAAGTCTTTC TATCTATGAG ATGAATTATC TTCTGAATAA GACAAAAGTA	5280
AAAGATGTCA TGATTGCGCA TGTGTCACT GTCTCAGGCT ATGCTAGTCT AGAAGATGCA	5340
ACTTATCTGA TGTGAAAAA TAAGATTAGT ATTCTCCCTG TCGTAGATAA CCATCAAGTA	5400
TACGGAGTTA TTA CTGACCG TGACGTTTTC CAAGCCTTTC TTGAAATTGC AGGTTATGGC	5460
GAAGAAGGGA TTCGTGTACG CTTTGTTACA GAAGATGAAG TTGGTGTCT TGGAAAAATT	5520
GTTCCTTTGA TTGTAGAAGA AAATTGAAAT ATCTCCATA CAGTCAATAT TCCGCGTAAG	5580
GATGGTAAGG TGATTATCGA AGTGCAAATC GATGGATCAA TTGATTTACC AGCCTTGAAA	5640
GAAAAATTG AAGCAAATGG TATTCAAGTG GAAGAAATCG CTCGCACTTC AGCAAAAGTC	5700
TTGTAAGAAG GGAAGCCCAA AGGCTTCTTT TTTCATGAAA AGGGGATTAG AGCAAAAGAT	5760
GGAAAGAAAT GATAAAATAT GCTATAATGA AATAATGTAA AAAAGGAGTA TTTATGGACA	5820
TTTCAGTAAT TCGTCAGAAA ATTGACGCAA ATCGTGAAAA ATTAGCTTCT TTCAGGGGGT	5880
CTCTTTGACC TCGAAGGGCT AGAGGAAGAG ATTGCCATCT TGGAAAACAA GATGACAGAA	5940
CCTGATTTTT GGAACGATAA TATTGCGGCC CAAAAACGT CGCAAGAATT AAATGAATTA	6000
AAAAACACTT ACAATACCTT CCATAAGATG GAAGAGTTGC AGGATGAAGT CGAAATTTTA	6060
TTGGATTTTT TGGCTGAAGA CGAGTCAGTG CATGATGAAC TGGTAGCGCA GTTAGCCGAA	6120
CTTGATAAGA TAATGACCAG CTACGAGATG ACTCTACTCT TGTCAGAACCT TTATGACCAC	6180
AACAATGCCA TCTTGAAAT CCATCCAGGT TCTGGTGGTA CTGAGGCGCA GGAAGGGGT	6240
GATATGTTGC TTCGTATGTA TACTCGTTAT GGTAATGCTA AAGGCTTTAA AGTGAAGTG	6300
TTGGATTACC AAGCAGGTGA TGAGGCTGGT ATTAAGTCGG TAACTTTATC ATTTGAAGGG	6360
CCTAATGCCT ATGGTCTCCT CAAGTCAGAA ATGGGTGTTT ACCGCTTAGT GCGAATCTCA	6420
CCATTTGACT CTGCCAAACG TCGCCATACC TCTTTCACAT CTGTAGAAGT GATGCCAGAA	6480
TTGGATGATA CTATTGAAGT GGAAATCCGT GAAGATGATA TCAAGATGGA TACCTTCCGT	6540

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TCAGGTGGTG CCGGTGGACA AAACGTCAAT AAGGTTTCAA CAGGTGTACG TTTAACCCAC	6600
ATTCCAAC TG GAATTGTTGT CCAATCAACA GTAGATCGTA CCCAGTATGG AAATAGAGAT	6660
CGTGCCATGA AGATGTTGCA GGCTAAGCTC TATCAAATGG AGCAAGATAA GAAGGCTGCG	6720
GAGGTAGATT CTCTCAAAGG TGAGAAAAAG GAGATCACTT GCGGAAGCCA AATCCGTTCT	6780
TATGTC TTCA CGCCTTATAC TATGGTAAAA GATCACC GAA CTAGCTTTGA GGTGCTCAG	6840
G TAGATAAGG TTATGGATGG GGACCTAGAT GGT TTTATCG ATGCTTATCT CAAGTGGCGA	6900
ATTAGCTAAG ATAGAAAGGA ACTCACATGT CAATTATTGA AATGAGAGAT GTCGTTAAAA	6960
AATACGACAA CGGAACA ACT GCTCTACGCG GTGTTTCGGT TAGCGTTCAA CCGGGGAAT	7020
TTGCTTACAT CGTAGGACCT TCAGGAGCAG GGAAGTCAAC TTTTATTCGT TCTCTGTATC	7080
GTGAAGTAAA AATCGATAAA GGAAGCCTAT CAGTTGCTGG TTTAATCTG GTTAAGATCA	7140
AAAAGAAAGA TGTCCCGCTT CTACGTCGTA GTGTTGGGGT TGTCTTCCAG GATTATAAAT	7200
TGTTACCAA GAAAACTGTC TATGAAAATA TTGCTTACGC TATGGAAGTA ATCGGGGAAA	7260
ATCGCCGTAA TATCAAAGA CGAGTGATGG AAGTTTGGGA CTTGGTTGGA TTGAAGCATA	7320
AGGTTCTGTC TTTCCCAAAT GAACTCTCAG GTGGGGAGCA ACAGCGGATT GCGATTGCGC	7380
GTGCAATTGT AAATAATCCC AAAGTATTGA TAGCTGATGA GCCAACAGGA AATCTGGATC	7440
CGGATAATTC ATGGGAAATT ATGAATCTCT TGGAACGGAT TAACYTACAA GGAACA ACTA	7500
TTTGTATGGC GACTCATAAT AGCCAGATTG TAAATACCTT GCGCCACCGT GTCATTGCCA	7560
TTGAAAATGG CCGTGTCGTT CGTGACGAAT CAAAAGGAGA GTATGGATAC GATGATTAGT	7620
AGATTTTTC GCCATTTATT TGAAGCCTTA AAAAGTTGA AACGAAATGG TTGGATGACA	7680
G TAGCTGCTG TCAGTTCAGT CATGATTACT TTGACCTTGG TGGCAATATT TGCATCTGTT	7740
ATTTTCAATA CAGCGAACT AGCTACAGAT ATTGAAAATA ATGTCCGTGT AGTAGTTTAT	7800
ATCCGAAAGG ATGTGGAAGA TAATAGTCAG ACAATTGAAA AAGAAGGTCA AACTGTTACA	7860
AATAATGACT ACCACAAGGT ATATGATTCT TTGAAGAACA TGTCTACGGT TAAAAGTGTT	7920
ACCTTTTCAA GTAAAGAAGA ACAATATGAA AAATTAACCG AGATAATGGG AGATAACTGG	7980
AAAATCTTTG AAGGAGATGC CAATCCTCTC TATGATGCCT ATATTGTAGA GGCAAACACT	8040
CCAAATGATG TAAAACTAT AGCCGAAGAT GCTAAAAAAA TTGAAGGTGT CTCTGAGGTT	8100
CAAGATGGCG GTGCCAATAC AGAAAGACTC TTCAAGTTAG CTTCAATTAT CCGTGT TTGG	8160
GGACTAGGGA TTGCTGCTTT GTTAATTTTT ATCGCAGTTT TCTTGATTTC AAATACCATT	8220
CGTATTACCA TTATTTCCCG CAGTCGCGAA ATTCAAATCA TGCGCTTGGT CGGAGCTAAA	8280
AACAGTTATA TCCGTGGACC GTTCTTGTTA GAAGGAGCCT TTATCGGTTT ATTGGGAGCT	8340

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ATCGCACCAT CTGTTTTGGT CTTTATTGTT TATCAAATTG TTTACCAATC TGTCAACAAA	8400
TCGTTGGTAG GGCAAAATCT ATCCATGATT AGTCCAGATT TATTTAGTCC GTTGATGATT	8460
GCCCTACTAT TTGTGATTGG GGTTTTCATT GGTTCATTGG GATCAGGAAT ATCCATGCGC	8520
CGATTCTTGA AGATTTAGGT AAAATAGCTG CTTTATGAG GAGATTGTAA AATCTCCTTT	8580
TTTGCTACAA GAGTTTTTGA AAAGAGATGC GCAGAAGAAA AGAGCTTCCA AAGAAGTCCC	8640
CCAGAGAAGA CTTC	8654

(2) INFORMATION FOR SEQ ID NO: 99:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 19718 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: double
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 99:

TGTCGCGTCA AAATCATTAC TATGGCTATG TATAGCCCTT ACTATGACTT GGCTAAACAC	60
GTTTCGCTTTC AAATTTCTAG GCTCAGGCTG AAACAGTCTC CCAGGCTGTT CACTCCCGAA	120
TGCTAAAATC GTTCTTGATC GCTTTCACAT TGTACAACAT CTTAGCCGTG CTATGAGTCG	180
TGTGCATGTC CAAATCATGA ATCAGTTTCA TCGAAAATCC CATGAATACA AGGCTATCAA	240
GCGCTACTGG AAATCATTAC AACAGGATAG CCGTAAACTG AGTGATAAGC GATTTTATCG	300
CCCTACTTTT CGCATGCACT TAACAAATAA AGAAATTCTT GACAAGATTT TAAGCTATTC	360
AGAAGACTTG AAACACCACT ATCAGATCTA TCAACTCTTA CTTTTTCACT TTCAGAACAA	420
AGACCCTGAG AAATTTTTCG GACTCATTGA GGACAATCTG AAGCAGGTTC ATCCTCTTTT	480
TCAGACTGTC TTTAAAACCT TTCTCAAAGA TAAAGAAAAG ATTATCAACG CCCTTCAACT	540
ACACTATTCT AATGCCAAAC TGAAGCGAC CAATAATCTC ATCAAACTTA TCAAGCGCAA	600
TGCCCTTGGT TTTGAAACT TTGAAAACCT CAAAAACGG ATTTTATCG CTTTGAACAT	660
CAAAAAAGAA AGGACGAAAT TTGTCCTTTC TCGAGCTTAG CTGACTTCAA CCCACTACAG	720
TTGACAAAGA GCCTAATTTT CATAAAAATT GACATGGAAA TTATAAAACC ATTACTAGTT	780
TAGTCCTTTT TGATAACGTG CCAATTCGGC TTGGTTCGCC CAAACATAGT GACCTGGACG	840
GATTTCTACC ATAGATGGCT TATCAGTCTC ATAGTCGTGT TGACTTGGAT CGTAAACCTT	900
CAAGACCTTC TTACGTTCCA AGATTGGATC TGGGATTGGT ACCGCTGAAA GCAAGGCTTG	960
AGTATATGGG TGAATTGGAT TGTTAAACAA TTCTTCTGTT TCTGCAACCT CTACAATAAC	1020

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ACCCTTGTA	ATAACTGCGA	TACGATCTGA	AATAAAGCGA	ACAACCGACA	AGTCATGGGC	1080
GATGAAGAGA	TAGGTCAGGC	CGAGCTCTTT	TTGGAATTTT	TTGAGCAAGT	TCAAGACTTG	1140
GGCACGTACA	GAAACGTCCA	AGGCTGAAAT	TGGCTCATCT	GCAATAACAA	AGTCTGGTTG	1200
CATGACCAAG	GCACGGGCAA	TACCGATACG	TTGACGTTGA	CCGCCTGAGA	ATTCATGAGG	1260
GTAACGAGTC	AAGTGCTCAG	CAAGAAGACC	TACTTCACGG	ATAATATTTT	GAACCTTCTC	1320
TTTACGTTCT	TCTTCATCCT	TAAATAAACG	GTGATTGTAA	AGACCTTCAG	AAATAATATA	1380
ATCAACAGTC	GCACGTTTAT	TCAAACCTGC	GGCAGGGTCT	TGGAAAATCA	TCTGGATTCTG	1440
ACGAATCAAT	TCCGCAGCTT	GTTACGCGA	TTTCTTACCA	TTAATCTTTT	GACCATCAAA	1500
AATGATATCT	CCATTACTTG	TATCATTTAG	ACCGATGATA	GCACGACCAA	TAGTTGTTTT	1560
CCCACTACCG	GACTCACCTA	CAAGCGAGAA	AGTTCTCTCC	TTGTTGATAA	AGAAGTTAGC	1620
ATTTTAAACC	GCGACAAACT	TCTTACTTCC	TTACCCGAAG	GAAATTTCTA	AATCTTTGAT	1680
TTCTACTAAT	TTTTTCAGACA	TTTCCTTCCT	CCTAGTCAGC	CAGATGGGCA	AATCCCATTT	1740
TTTCACGGAT	CTTATCATGG	AGATTTGCAA	TCACAGCTGG	TTTTTCTACT	TTCCGAGCAT	1800
CCTCATGAAG	AAGCCAAGTT	TTAGCCCAAT	GTGTCTCTGA	TACTGAGAAT	TGAGGAGCTT	1860
TTTGTTGAA	GTCAATCTGC	ATTGCGTAGT	CAGAACGCAA	GGCAAAAGCA	TCCCCTTTCA	1920
GGTCAGTATA	AAGTGACGGA	GGTGTTCCTG	GGATTGAGTA	AAGATCCCCT	TTATCATCAG	1980
CAAGCTGAGG	CAAGCTAGAC	AAGAGACTCC	ATGTATATGG	ATGGCGAGGG	TCATAGAAGA	2040
CTTCCTCAAC	CGTTCCATAC	TCAACGATTT	CTCCTGCATA	CATAACCGCT	ACCTTATCCG	2100
CAATACTTGC	CACCACACCA	AGGTCGTGGG	TAATAAAGAT	TGTTGTGAAA	TGATACTCGT	2160
TTTGTAAGA	TTTGTAGCAA	TCAATAATCT	GAGCTTGAAT	AGTTACATCC	AAGGCAGTTG	2220
TTGGCTCATC	ACAGATCAAG	ACATCAGGTC	GGCAGGCAAG	GGCAATAGCA	ATAACGATAC	2280
GTTGACGCAT	TCCTCCAGAA	TATTGGAATG	GGTATTTCATT	AAAACGTCTA	TCTGCGTCTG	2340
GAATGCCAAC	CTTATTTCATG	TAGTCAATGG	CCAATTCTTT	CGCTTCTTTA	GCTGTTTTTC	2400
CTTGGTGTTT	TACAATAACT	TCTGTAATCT	GACTACCAAT	TGTTTTAATG	GGGTCCAAAC	2460
TAGTCATTGG	GTCTTGGAAG	ATAGTCGCAA	TCTTAGCACC	ACGAATTTGT	TCCCAATCCT	2520
TGTGAGAAGA	TAAAGCTGTC	AAGTCCTGAC	CACGGTAGTC	AATACTACCT	TGGGCAATAC	2580
GACCATTTTC	TTGAGCATA	CCTGTGAAGG	TCTTTGTCAA	AACAGATTTA	CCTGATCCTG	2640
ACTCACCTAC	CAAGGCTAAT	ACTTCTCCTT	CGACTAGTTC	AAGGGAAACG	CCGCGAATGG	2700
CTGTCAATAC	TTTGTACGGA	ACGTCAAATT	CCACGACAAT	ATCGCGAGCA	GTCAAAATTA	2760
CATTTTTTTC	TTTTGTGATT	TCTACTCCTA	TCTATGTGTA	CGTGGATCAC	TAGCATCCGC	2820

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TAAGTTTTGA CCAACTACGA AAAGGGACAA GGATACCAAG ACAAGGGTTG TCAATGGAAT	2880
CCAGAACAAG TAAGCATTGG TTGTTACGTT TTGTGAATAA TCCGAAATCA AACGACCCAA	2940
ACTTGGCACT GTAATCGGTA ATCCAAGACC GAAGAAAGAC AAGAAGGCTT CGTATGAGAT	3000
AAAGCTTGGA AGCATTGAG TCATGGTTGT CACAATAACA GATACCAATT GAGGCATGAT	3060
ATTTTTGGCA ACAATCTTCA AGGTTGGTGT TCCCAAAGTA CGTGACGCCA AGTTGTATTC	3120
CAAGTCACGA TAGCGCAAGA TTTGCACACG GATCATGAAG GCAATACCAA TCCATGTTGT	3180
TACGCTCATG GCAAAAATCA GATTCCAGAA TCCAGCTCCG ATTGAGTAAG TCAAGACAAT	3240
AACAATCAAA AGAGGTGGGA TGTGAGAT GACGTTGTAA ACTTCCATCA TGACACGGTC	3300
AACTGATTTT GAAATACCCC AAATACCACC GACAAAAACA CCGATAACCA AGTTAATCAC	3360
TGTCGCAATC ACAGAAATGA GGATGGAGTT ACGAGCTCCG AACCAGACAC CGTCAAAGAG	3420
CGATTTACCG TTAGTGTACG TACCGAACCA ATGCTCCGCA TTTGGCTTGA TATAACGAAC	3480
ACTAAAGTCG TTTACCTTGC TGACATCATT GAAATCAAAC TTAGAAAACA TTGGGTAGAT	3540
GAACTTATC AAAATGATGG CTACCAAGAT TCCCAACATG ACTACAGTTG ATTTTTCTT	3600
CATAAATTGT TTAAACACTG ATTTCCAGTA AGAATATGCT GGCGCATCAA TAGTTTCAGA	3660
GGCAAAATCG TCACGTTTCA CAACTGAAA TTTTCTTTA TCGATTGTAG ACATTATTTG	3720
CCTCCTTTCT CAGTCAATTT AATACGTGGG TCAATAATAG TCATCCAAAT ATCTCCCAA	3780
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TCAGTAAGGG TTGCACCACC GATAACCCCA ATAATGGCAG CAGGAATTCC TGAAACCAGC	3960
GGAACCATGG CATTTTAAA GATGTGTTG TTTGAAATTT CTTTTTCAGA CAAACCTTTT	4020
GCACGAGCGA AACGAACAAA GTCTTGAGAT TGCAAGTCAA TCATGTAACG ACGAATCCAA	4080
ATGGCTGTAC CAGGAGCACC CAACAAACCA AGGATGACTG CTGGTAAAAC GTAAGAACGC	4140
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CGAACGATGT AAACCAAGGC AATCGTTGGA AGAGCAAGCA AGAAGGTCAA AGCCCCTGTT	4260
GAGAGGCTAT CAATCCAAGT GTTCTTGAAA CGAGCCATGG CTGAACCAAG TGGCACGGCA	4320
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GGATATTGGT AATTACTTTC AGTCGCTGTA TAAGGATCAT CTTTCCATA GCTAGCTACT	4440
TCACGAGAGT CAGCCTGACT AGGTGACTTG TAGGTTCTTG AGTAAATATT TACAGAAGAC	4500
GTTTTCTTAC CTGTTGGGAA CTGAACTTGG GCAGTTTTGG TTTGTCCTTG ACCTTGAGTA	4560

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ATAACCTGAA	GAACCTGGTGT	ATTAGCATAG	GTTGGGTAAG	AGTCACCTAA	ATTCAAGTTC	4620
ACAAAGTTTT	GATGAACAAA	TGGGAACTGA	CTGTTAAAGT	ACAAGAGATA	TTTATGTTTA	4680
GTTCTGAAAC	CGACCAATGA	CCATCCGATA	GCTGGATCAT	TTTCAAAACG	AAGGTAGCGT	4740
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GCATAGAAGT	GAAAAACACG	TTCAAAAATT	GGAATTTTAC	GAGTAGCATA	GAATTGACCA	4860
CTTTCAGTAA	ATTCTCCCAA	AGTCCAACCA	TGACCTAATT	GATTGATGTA	CTTTTCATAA	4920
ATAGCTTTAT	TGGTCGCATT	TGCTTCTACT	GTTACAGAAG	AATCCATGCT	ACTTGCCTTT	4980
TCTTGCAACT	CTTTAGTATC	GTAATACTCA	ATGTAGCCCA	TACGCTCAA	CACAGTATTT	5040
TCATAGTTAT	CACGTTTATC	AGCCGTTGTC	GCAATTTTAT	TATAGTTAGG	ATCCTGCTTG	5100
AAAATCAATT	TTGAGGAAC	CAAGGTATAG	ATAATCGTGT	AGGTCAAAGT	CGTTACTAAG	5160
AAAATCGAAA	CCAATGACCG	CAAAACACGC	ATAAAAATAT	ATTTTTTCAT	ATTATTTCTT	5220
TTAAAAATCC	CAAAAGAACC	TTCTCCTCAT	GGAGAGAAAG	TTCTATTAGA	AATTATTTAC	5280
TTACATGAC	TTGCCAATTC	TTTTTGAGCT	TTCTCATTTG	ATTCAGCTTT	TTCTTTCAAC	5340
CATTTTTTAC	GAGCTTTTTT	ATACTCTTCC	TTAGTCACCA	CTTTATCTTG	TGATTTCAAA	5400
TATTTGAAGT	AAACATCTGA	CCCCTTAGAG	CCTGTTTGCG	CAGAAGCTCC	AGTAAATGGA	5460
ACAATTCGTG	AAAGCACTGG	TGCTGCACCA	GAAGAAGCCA	TAGCAGGAAT	AAAGAGTGAA	5520
CTATCTGTCA	ACCATGCTTG	AGCCGCTGCA	TATTTTTTCAT	AACGGACATT	CAAGTCGCTT	5580
GTCTCTCTGG	CAGCTTCATC	AACTAATTTA	TCGTATTCTT	TCAAACCAAC	TTGAACTACT	5640
GAAGGGCTAT	TTGGATTATC	AAATCCTAAA	TATGTTTTTG	TAGTTTCACT	GCTAGTTGTT	5700
TTTAAATAT	CCAGGTAAGT	AGATGGGTCT	TGATAGCTG	GCCCCATGA	AACTCCTCCT	5760
GATACATCCC	AATCCTCAGA	TGAAGCATTG	GCAGCATAGT	AAGTAATATT	AAGGAATTCA	5820
TCACTTGTC	TTTGTTGAAT	ATCAACAACG	ACATTTTCAA	CACCAAGAAC	TGTTTCTACA	5880
GATTGTTTAA	AGGACTGAAT	ACGAGATATG	TAGTTTTTTG	ATGCTTGGTC	TACTGGAACG	5940
TCCAGATGAA	TAGGAAACTG	AACGCCGTCT	GCTTCTAAAG	CTTTCTTAGC	TTTCGCAAAC	6000
TCTGCCTTGG	CCTTGTCAGC	ATTGAATAAA	CCATCCTGCC	CATCAGCTAA	ATTCACACCT	6060
TTCCACTCAT	CACCATAAGC	AGGAAGTTGA	GCAGCGACTA	AATCACCAAA	GGTCTTCTCA	6120
CCAGCTGAAA	CAAAGTCTGG	TTTTACAAAT	AAATTACGAA	CTGCTAAAGC	TGCTCCATCT	6180
TTACCATTGA	TTTGAGCTGA	GTAAGCTGAG	CGATCAAGAG	CAAAATTCAA	GGCTTGACGG	6240
AAATCTTTGT	TAAGCAATGC	CTTCTTAGTA	GCTACTTTCT	CTGAATCTGT	AGTTTTAGAA	6300
GTATAGTTGT	AACTTTGGCG	ATCAATATTC	ACACCCAGAC	CAGCAATCCC	AGAGCCTGAT	6360

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TGTGTGTAAT	AGATATTGTC	CTTGTATTCT	TCTGCAACCT	TAGAATAGTT	GGAGCTGGTA	6420
GGGTAAAGAC	GGGCATAACT	ATAAGCTCCA	CTAGTGAAGT	TACGCTCTAG	CGACTCCTGA	6480
TCTGATCCAT	CATAGTAAGC	TAGATTGATA	GTATCTAGGT	GGACATTTTC	TTTATCCCAA	6540
TATTGCTCAT	TTTTTACAAA	CTCTACAGAA	GATTTTGCAG	TCAACCCTTT	CAACAAGAAT	6600
GGACCATTAT	AAAGCAAGGA	TGTCGGATCT	GTTGGTTTAG	CAAAATCGCT	TCCTTTTGAT	6660
GTTTCGAATT	CTTCATTGAG	AGGCCAGAAA	ATAGAATAGG	TCAACTTAGA	GTTCCAGAAC	6720
GGTTCAGGCT	GGTCAAAGT	GTATTGTAAC	GTATAATCAT	CAACCGCCTT	GACACCAACT	6780
GTTGAAAAAT	CTGTTGAAGT	TCCTGATAGA	TAATCTGCCA	AGCCTTTAAC	CGAATTTTCA	6840
GCTAAATACA	TAGCTTCTGA	TTTTTTATCT	GCTGCGTGTT	TTAAACCGTT	CACGAAATCT	6900
TTAGCCGTCA	CCTCTGCATA	TTCTTCTCCA	TCAGAGGTAA	ACCATTTAAC	CCCTTTACGA	6960
ATCTTATAAG	TGTAGGTCAA	ACCATCCTTA	GAGACTTCCC	AATCCTCTGC	AACTGCAGGA	7020
GCAAGATTAC	CGTAATTATC	GTTAGTGAAT	AAACCATCAA	TCCCATTGTA	AGTCACTACT	7080
GTTGTACTAT	TTTTACTTGA	AATCAGGTAG	TCCAAGGTTT	CTGGGTCTGC	TGTATAAACA	7140
TAGCCATAAG	CTTTAGGGGC	TGATGAATCA	GATGATTTTG	AAGAACTGCA	TGCTGCAAGT	7200
ACACCTGCTG	CTAATAAAAC	AAGACCTGCT	GTAGCAAATA	CACGATTTTT	TTTCATTTTC	7260
TACTCCTCTG	TTTATGTGAA	TTATAGATTG	ACAACCATTA	TATCACATTA	TCCATTAAAA	7320
ATCAAACAAA	TTTTCAGAAT	ATTTAGGCTT	GTTGGCACAA	ATTTTTCATT	TTTTTTGAAT	7380
ATATGATTCA	AATTGTCGTT	CGAAGTGTC	AAGACTACAG	TGAAAATAGG	AAATTTGACG	7440
CAGAACTTTT	GGAGTTTAGG	AAGACATACA	GTAATAATGAA	ATACGGACGG	AACAATGTGA	7500
TTTTGGAATT	CAAATTAAAT	TATAACAATA	TTGTAGAAGT	ATCATTCTAG	TATTCAAGAT	7560
TCAGTTTACT	ATGTCTTTTC	ACACCAACCT	TATCCCGAAT	TCAATTACTT	TTGTGATTTA	7620
CATATATAGA	TTAAGACTAT	CTTTTATACT	TTAAAATTTT	TCGCTACCTT	ATCCACTATA	7680
TGCTCCTCGC	TATCACGTTT	CTATTCATAG	CCTACGATTT	CACATTTGCT	TTCTCTGACA	7740
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GACTTACACC	TCAGATGCAC	GACATGCCCA	TCGTATAAAA	AATCTCCTAC	CCAAGGTAGA	7920
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GGAATACTGC	ACATAACTAG	CAAGAAAATA	AAGCCTGACT	GAATCCAGAA	GAGAGCCAAG	8040
TCAAAAATTC	CGTGACAGC	AACCACTGTA	AGGAAAGATA	GATAAAGGCC	GATAATCGGA	8100

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CGTTTCCCCG ACTCCTGACT CATATCCATC ATCAAGCGAA CAGGAGCAAC AGAAGACAAA	8160
ACTAATAAAA TAGTCCCCAC AATTCCGTAA CTCAGAATCG TATCAATATA AAGACTGTGG	8220
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TCACCCCAAA AAGGATTTTG CTTAAACAAG GCCATCCCAG CATCCCAGAT AGAAATGCGT	8340
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AAGCATAGTC AATCTCCTCA TCGGTCAGGA TATCCTTGAC ATCTACTACT CCAATCCCAT	9840
CATGGGTATC TAGCGTCGTA AATTGCTTCA TCGGGCTCAT CTTTAACCAC TTAGCCAAAC	9900

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GTCCCATCTG	ATGATTCGGT	ACTGCTGACA	CATGAGCCCC	CATAGAAATG	GTTGGATAGA	14640
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TGATATTGCG	GTTCATATCC	CATTTAATGT	AATCAATATC	ATGATAAAAT	AGGAGTTGAT	14940
CTAAGACACT	TTTCAAGTAT	TCTACTACCT	GAGGATTGGC	AAGATTAAGT	ACTAATTGAT	15000
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ATCCCTGATC TGAATGAGTC ACTAAAGCTA CCGGTGTTTC AAAGTATTCC TCAGGAGCTA	15480
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TCTCCAATTA ATGGGCACGA GTGGACTCGA ACCACCGACC TCACGCTTAT CAGGCGTGCG	18480
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ATGGAGCTTC AATCCATTGC TCTACCAACT GAGCTACCGA GCCTTATTGC GGGAGCAGGA	18720

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TTTGAACCTA CGACCTTCGG GTTATGAGCC CGACGAGCTA CCGAGCTGCT CCATCCCCGCG 18780
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(2) INFORMATION FOR SEQ ID NO: 100:

- (i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 4117 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 100:

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GTTAGATCAT GGTTTATTAT CCACAACCTG TGGATAACTT TGTGAATAAG AGAAGTTGCT 240
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CTCAGCTAGC TTATCTGGGA GATGAACTAG CAGCTTTTAT CCACTTCGGT CCTAATACCT 360
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763

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AGGTCAGTCC TTGGAGGAGA GGAAAGGGCG ACTTGCTCCT TGAAGTATCC CAAGCTGCCA	600
CAGAGTTTGA TATGGATATG GGGGTCTACC TGTCACCGTG GGATGCCCCAT AGTCCCCTCT	660
ATCATGTGGA CCGAGAAGCG GACTACAATG CCTATTATCT GGCTCAGTTG AAGGAAATCT	720
TATCAAATCC TAACTATGGG AATGCTGGTA AGTTCCGTGA GGTTTGGATG GATGGTGCCA	780
GAGGAGAGGG CGCGCAAAAG GTTAATTATG AATTTGAAAA ATGGTTTGAA ACCATTCTGT	840
ACCTGCAGGG CGATTGCTTG ATTTTTTCAA CAGAAGGCAC CAGTATCCGC TGGATTGGCA	900
ATGAACGAGG GTATGCAGGT GATCCACTGT GGCAAAAGGT GAATCCTGAT AAAC TAGGAA	960
CAGAAGCAGA GCTGAACTAT CTTCAGCACG GGGATCCCTC GGGCACGATT TTTTCAATCG	1020
GAGAGGCAGA TGTTCCTATC CGTCCAGGCT GGTTCCTACCA TGAGGATCAG GATCCTAAGT	1080
CTCTCGAGGA GTTGCTCGAA ATCTACTTTC ACTCAGTAGG GCGAGGAACT CCACTCTTGC	1140
TTAATATTCC GCCGAATCAA GCTGGGCTCT TTGATGCAAA GGATATTGAA CGACTTTATG	1200
AATTTGCGAC CTATCGCAAT GAGCTCTATA AAGAAGATT GGCTCTGGGA GCTGAGGTAT	1260
CTGGTCCAGC TCTTCCGCA GACTTTGCTT GTCGCCATT GACAGACGGC CTTGAGACCA	1320
GCTCTTGGGC AAGCGATGCA GACTTGCCCA TCCAGTTAGA ACTCGACTTA GGTTCTCCTA	1380
AACTTTTGA TGTAATTGAG TTAAGAGAAG ATTTGAAGCT AGGGCAACGA ATCGCTGCTT	1440
TTCATGTGCA AGTAGAGGTG GATGGTGTCT GGCAGGAGTT TGGTTCGGGT CATACTGTTG	1500
GTTACAAACG TCTCTTACGA GGAGCAGTTG TTGAGGCACA GAAGATACGT GTAGTCATTA	1560
CAGAATCACA GGCTTTGCCT TTGTTGACCA AGATTTCCCT TTATAAACT CCTGGATTAT	1620
CAAAAAAGA AGTTGTTTCA GAACTAGCAT TTGCAGAAAA AAGCCTAGCT GTGGCAAAGG	1680
GAGAAAATGC CTATTTTACA GTTAAGCGCA GAGAATGTAG TGGTCCTTTA GAAGCTAAGA	1740
TTTCGATTCA ACCGGGGACA GGTGTCCATG GTGTGCGCTA TCAGGATGAG ATTCAAGTCC	1800
TTGCGTTTCA AACTGGTGAG ACTGAAAAAA GTCTGACGCT ACCAACCTTG TATTTGCGAG	1860
GAGATAAAC CTTGGATTTT TATCTGAACC TAACGGTGGG TGGTCAGCTT GTGGATCAAC	1920
TTCAAGTCCA AGTTTCATAA AAGAAGAACC TTTGCGCGAT GCAAAGGTTT TTTTGGTTAT	1980
TAGTGACTTG GTAACCAGCT GAGGGTGAAA GTTAGTTGTT CAGCTTTTAA GAGGTCTTGG	2040
TGTTGAATAG TTGATACGAG TGTTTGTCC AGTCGGCATT CTTTGACAAA GTTAAATGG	2100
TTGTGGTTTT GTTTAGTATG GATATCCAGC CATTTATCTT CTTTAGCGAG GTAGACTCGT	2160

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AGATGGTCAA	AGAGAGGGAT	TCCGAGGTCA	TAGCTTGGTT	TTCCTGGACA	GGTTGGATAA	2220
AATCCGAGAG	CTGACCAGAT	GTACCAAGCA	GAGAGACTAC	CATTGTCTTC	ATCTCCAGGA	2280
TAGGCTTCCC	AACTTGGGTG	AAAAGCTTTC	TGACGGAGCG	TCTTGATAAG	AAGGGCAGTG	2340
TAGTCAGGGT	AATCGCTGTA	ACGGAAGAGA	TAAGGAATGT	GGAAACTAGG	CTGGTTGGAA	2400
ATGGCTATTT	GTCCAAAAGG	AGCAGTAGCC	ATCTCGCTCA	TTTCGTGAAT	TTCGTAACCA	2460
TAGCCTGTTG	TTTCAAAGAG	GGGAGCATCT	TGACAGGCTT	TCAAAAGATA	GTTGCTAAAG	2520
GTTTCTTTTC	CACCCATCAG	TTGGATTAAG	CCAGGGATGT	CGTGGAGAAC	GCCTAAAGTA	2580
GCTTGAATGG	CAGAGCATTG	AGCGTAGTCT	CGCCCCAAC	TATAAGGAGA	GAAGTCAGGG	2640
TGAAAGTTTC	CTTGATTGTC	TCGTGCTCGC	ATGTAACCTG	TCTCAGCGTC	AAATAGCTGG	2700
CGGTAATTTT	GTGAAGCAGC	CTTGTAGGTT	TCAGCGATTT	CTATGTTCTC	TAGTTTTTTG	2760
GCACAGCTGG	CGATACAAA	GTCACTATAG	GCATAGTCTA	GAGTATGGCT	AACACTTTTCG	2820
TGGTGGTCGG	TAGAGAGGTA	ACCTAGTTCT	TGGTATTGGG	CTAGTCCGTG	GCGGCCATTG	2880
ATGCCGAGAG	GGTCGGCTTT	GCTGGCTGTT	TCGAGCATGG	CTTGGAAGAG	TTCTCCTTCT	2940
AGGTCGGGGG	TCATGTCCTT	GCAGGCGCTA	TCTGCGATAA	TACCGTCTAA	AAGTGTACCT	3000
GGCATCATAC	CCCGTTCATC	TGGAGCCAGC	CATTTTGGAA	GGAAACCAGT	ATCGCGGTAG	3060
CTATTGAGGA	AACCTTCTAA	AAAGCGTTGA	TAGTGCTCCG	GTATGATAAG	GGCAAAGAGG	3120
GGGAAGGTGG	TGCGGAAGGT	ATCCAGAAA	CCATTGTTGC	TAAAGAGGAC	ACCAGGCTTG	3180
ACAGTACCAG	TAGCCAGATC	CATGTGGATG	GCTTGCCCTG	ATTCATTAAT	CTCATAAAA	3240
GTCTGTGGGA	AGAGGAAGAG	TCTGTAGAGG	CAGTGGTCAA	AGAAGGTTTCG	GTCAGCCTCT	3300
CCTGTCTCTA	TAATGTCAAA	ACGATGGAGG	AGATTTTCCC	AATCCACTTG	GGCACTTCAT	3360
TTACAGCTAT	CAAAATCTTC	TTGAGGTAGA	TTGATTAGAG	CTTGAGAAGG	AGAGATGAAA	3420
GAAGTGGCTA	GTTGCATCTC	GGTTTGAATA	CTTGCTAAGT	CAATTGCGCA	GTCTCCAGCT	3480
TCTTGGCTGA	TAGCAAGAAT	ATCCGTGTTT	ATTTGCAGGG	CAGTGAACAT	CGTTAGCGAA	3540
TTTTTGTTAG	TTTCAGTTTT	ACCTTCTTGT	CGCAGGGCAA	GAGTCCGCTT	ATCTACTTGC	3600
TCTACTGTCA	GTTTCATCTG	TGCGTGAAGA	TAGAGGGAGA	GGGCTTTGCC	TTGCTTTTGA	3660
TTCAAACGAA	TAGAAGCACC	ATAGCAAGTC	GGTGTGAGCT	GGGTTTCAAT	CTGATAACGC	3720
AGAGAAAAGA	GCTTCAAATA	GTGAGGCTGG	AAGCAAGCTT	TATCTATATC	ATAAGAAGAC	3780
TGGCGGTGAA	AGAGGCTGTC	TCCCCCAGT	TGACTGGTGA	CAGGTGTCAG	AAGGAGCCAA	3840
GAGTAGTCCC	CAATCCAAGG	ACTGGGCTGG	TGAGTTAATC	GAATCCCCTG	AAAGATAGGC	3900
AGATGTGGAT	CAAAAAACCA	AGATCCATCC	TGGTCACTGG	TCTGGGGCAC	AAAGTAATTC	3960

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ATCCCAAAG GCACGCCTGT GTATGGCAGG GTATTTCCCC GAGAAAAGGC ATGCTTGTTG 4020
GTAGTTCCAA AACGGGTATC GATGGTATCA AGTAGTGGTT TCATAGTCTT TCCTTTAGCT 4080
GTTTTTCTAC ATTATATCAG TAATAGAGGG CCTTTAG 4117

(2) INFORMATION FOR SEQ ID NO: 101:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 2727 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: double
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 101:

CTGGTTCAAT TATTATTCAC TCTAAGTAGT CATATGTTCT TTATTTATGT GAGTTTTTAC 60
CTTTTAAAGG ATCTTGTTAG ATGGGAGAAG GTTTTAAAAG TGACAGATGA TAATACAAGA 120
AAAGTTCGTT TATTAGTAGC CTTTTTTAGC ATTGTCATAG GCTACATCCT GACTTCTTTC 180
TTTATTAGCC TGTATCATTT GTGGCAAGAA GCGCTTAGAG GATTATTATG AAATCAAGAG 240
TAAAGGAAAC GAGTATGGAT AAAATTGTGG TTCAAGGTGG CGATAATCGT CTGGTAGGAA 300
GCGTGACGAT CGAGGGAGCA AAAAATGCAG TCTTACCCTT GTTGGCAGCG ACTATTCTAG 360
CAAGTGAAGG AAAGACCGTC TTGCAGAATG TTCCGATTTT GTCGGATGTC TTTATTATGA 420
ATCAGGTAGT TGGTGGTTTG AATGCCAAGG TTGACTTTGA TGAGGAAGCT CATCTTGTC 480
AGGTGGATGC TACTGGCGAC ATCACTGAGG AAGCCCCTTA CAAGTATGTC AGCAAGATGC 540
GCGCCTCCAT CGTTGTATTA GGGCCAATCC TTGCCCGTGT GGGTCATGCC AAGGTATCCA 600
TGCCAGGTGG TTGTACGATT GGTAGCCGTC CTATTGATCT TCATTTGAAA GGTCTGGAAG 660
CTATGGGGGT TAAGATTAGT CAGACAGCTG GTTACATCGA AGCCAAGGCA GAACGCTTGC 720
ATGGTGCTCA TATCTATATG GACTTTCCAA GTGTTGGTGC AACGCAGAAC TTGATGATGG 780
CAGCGACTCT GGCTGATGGG GTGACAGTGA TTGAGAATGC TGCCCGTGAG CCTGAGATTG 840
TTGACTTAGC CATTCCTCCTT AATGAAATGG GAGCCAAGGT CAAAGGTGCT GGTACAGAGA 900
CTATAACCAT TACTGGTGTT GAGAACTTC ATGGTACGAC TCACAATGTA GTCCAAGACC 960
GTATCGAAGC AGGAACCTTT ATGGTAGCTG CTGCCATGAC TGGTGGTGAT GTCTTGATTC 1020
GAGACGCTGT CTGGGAGCAC AACCGTCCCT TGATTGCCAA GTTACTTGAA ATGGGTGTTG 1080
AAGTAATTGA AGAAGACGAA GGAATTCGTG TTCGTTCTCA ACTAGAAAAT CTAAGAGCTG 1140
TTCATGTGAA AACCTTGCCC CACCCAGGAT TTCCAACAGA TATGCAGGCT CAATTACAG 1200

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CCTTGATGAC AGTTGCAAAA GGCGAATCAA CCATGGTGGA GACAGTTTTC GAAAATCGTT	1260
TCCAACACCT AGAAGAGATG CGCCGCATGG GCTTGCATTC TGAGATTATC CGTGATACAG	1320
CTCGTATTGT TGGTGGACAG CCTTTGCAGG GAGCAGAAGT TCTTTCAACT GACCTTCGTG	1380
CCAGTGCGGC CTTGATTTTG ACAGGTTTGG TAGCACAGGG AGAAACTGTG GTCGGTAAAT	1440
TGGTTCACCT GGATAGAGGT TACTACGGTT TCCATGAGAA GTTGGCGCAG CTAGGTGCTA	1500
AGATTCAGCG GATTGAGGCA AGTGATGAAG ATGAATAAGA AATCAAGCTA CGTAGTCAAG	1560
CGTTTACTTT TAGTCATCAT AGTACTGATT TTAGGTACTC TGGCTCTAGG AATCGGTTTA	1620
ATGGTAGGTT ATGGAATCTT GGGCAACGGT CAAGATCCAT GGGCTATCCT GTCTCCAGCA	1680
AAATGGCAGG AATTGATTCA TAAATTTACA GGAAATTAGG CTGGAGAACC AGCCTTTTTC	1740
TAAAGATAAG GAGAAATATG AACAAAAAAA CAAGACAGAC ACTAATCGGA CTGCTAGTGT	1800
TATTGCTTTT GTCTACAGGG AGCTATTATA TCAAGCAGAT GCCGTCGGCA CCTAATAGTC	1860
CCAAAACCAA TCTTAGTCAG AAAAAACAAG CGTCTGAAGC TCCTAGTCAA GCATTGGCAG	1920
AGAGTGCTTT AACAGACGCA GTCAAGAGTC AAATAAAGGG GAGTCTGGAG TGGAAATGGCT	1980
CAGGTGCTTT TATCGTCAAT GGTAATAAAA CAAATCTAGA TGCCAAGGTT TCAAGTAAGC	2040
CCTACGCTGA CAATAAAACA AAGACAGTGG GCAAGGAAAC TGTTCCAACC GTAGCTAATG	2100
CCCTCTTGTC TAAGGCCACT CGTCAGTACA AGAATCGTAA AGAAACTGGG AATGGTTCAA	2160
CTTCTTGAC TCCTCCAGGT TGGCATCAGG TCAAGAATCT AAAGGGCTCT TATACCCATG	2220
CAGTCGATAG AGGTCATTTG TTAGGCTATG CCTTAATCGG TGGTTTGGAT GGTTTTGATG	2280
CCTCAACAAG CAATCCTAAA AACATTGCTG TTCAGACAGC CTGGGCAAAT CAGGCACAAG	2340
CCGAGTATTC GACTGGTCAA AACTACTATG AAAGCAAGGT GCGTAAAGCC TTGGACCAAA	2400
ACAAGCGTGT CCGTTACCGT GTAACCCCTT ACTACGCTTC AAACGAGGAT TTAGTTCCTT	2460
CAGCTTCACA GATTGAAGCC AAGTCTTCGG ATGGAGAATT GGAATTCAAT GTTCTAGTTC	2520
CCAATGTTCA AAAGGGACTT CAACTGGATT ACCGAACTGG AGAAGTAACT GTAACCTCGT	2580
AAAAGATACG CCTACACTCC TATGTCACCT ATGGATGTAG GAGTTCTTTT TACTAGTTTA	2640
AGCAGGACTA AGACAGGTAC TAAGACAAAA TAGCAACTTC TAAAACTAAC TTCCAGTTTT	2700
GGGAGAGAGA TGGAAGTTAC TTTGAGA	2727

(2) INFORMATION FOR SEQ ID NO: 102:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 5717 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

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(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 102:

TTTTTTGTAG ATTTAAGTGG GGTGCAATTC CTAAAAATA AAAAACAATT TTTGAAAATT	60
ATGTTAGCAG GAATTGCTTC AAATTCGATT TTATCACTTA CAGGTTTACT TGTTTTATTG	120
TTCACATCGT ATAAATTGCT TGGACTCTTA TTTTTTATCA TTAACCTAGG TATGATTTTT	180
ATTAATTCAA TTCCTTTTTT TCAGTATGAT AGTGGTATTA TTTTAAGATA CTTGAATTCT	240
AACAATAATA ACTTGAATTT TCAATATATA GTTCAACTTT TAATAGCATT TGTATTATT	300
TATTTTCCTT TGAGTCAACT ATTACAGTTT TTGACACCCA ATATTATTGT TCGTAGTATA	360
GGAGGGGTGG TTGTTTCTAT ACTGCTTTCT ATATTATATA TGATAGGAAG GACGAAATAT	420
GTTCTACGTA AATAGTTATG TTTTGTCTTA TAAAAAGAA GGTATAATGT ATTTACGTGG	480
TCGGAGTATG CGGGAATAG CTATAGAACC TCAAATTTCT CAAGAATTTA TCAACGATCT	540
ATTTAATAGT TGTAAAGAAC TATTAGAGAT AGAAGAAGTA TTAGGCAGTA AACTAACATT	600
TGAACATAA ATGAACAAAT TTTAATTTCT GATGAGATAG ATATTGATAG TAGATATTCT	660
AGAACTAAAG GTTACTATTC GTTATTTTAT AATGAAGAGT ATAATAAAAT ACAGAATAAA	720
ACAGTATTAG TATTAGGAGC AGGAGTCTTA GGATGTTATA TATCTCTAAG TCTAAGTATG	780
TATGGAGTGA GGAACTTAT TGTGCTGAT TACGATATAA TAGAACCATC AAATTTAAAT	840
AGGCAAATTC TTTATACAGA GTCGGATGTT GGTAAGGAGA AGATTAATGT TCTTTCTGAA	900
AAAATACACA AGTATAATTC AGATGTTCTAG GTAGTACCTA TTTCTATTAA AGTTTCTTCA	960
GTAGAAGAAT TAGAAAAAAT TGTTCGGGAA TATGGGAGTA TAGATTTTAT CGTTAAAGCA	1020
ATTGATACGC CCATTGATAT TATAAAAATT GTCAATCAAT TTGCTGTATC GCATAAGATA	1080
TCCTACATAT CAGGAGGGTT TAATGGATGC TATCTTATTA TTGATAATAT ATATATCCCT	1140
ACCATCGGTT CTTGCTTTGG TTGTCGGAAT ATAAACAAAG ATATAAATAA GTACACTTTA	1200
TCTGATAAGA CAAAGTGGCC GACTACACCA GAGATGCCTG CTATTTTGGG AGGGATAATG	1260
ACTAATTTAA TAATTAAAAT ATTTCTGGGA TGTATAATG AAATCCTAAT AGATAACGCT	1320
TACGTTTATA ATATGAGAAA TCATGCTCTA AGTCAAGAAA AATATGTTCT GGAAAACGGA	1380
GAATGTCCAA TTTGTAAAAA AATAATAAAG TGAAAGATAA CAATATTAGA GCGAAAACAT	1440
TTATTCGTTT AGTTTGTTTT TGCTTATTAT CAGGAGGAGT AGCTTTTTTA TCTGCTATTG	1500
GGCAGTTCAC TGTTATAGAA ACACAATTAA TAGTATTGTT CTTGGGTATT ATTTTGTCTA	1560
TATATTATGC TTAATAAAT AAAAATATTC AAACATCATT GGAAAATATA GTATGGCTTT	1620

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TTTCATCGTT TGAGATTTTA TTTTTCCTTG TTAATTTTAG AACATTTATT CAGTTACCAG	1680
TGGATATTTT TATTGGTATG ATAATATTTT TAATGCTGTG GATATTTATT ATGTTAGGTA	1740
TAGTGTGTCT TAGTTATTAT ATAACCTTAT TATTTAGCAA GGAGGCTTAG TATGTTTAAA	1800
AAAATAGGTA TAATGAGCAT TTGCATATAT ATAATTATTT TATACTGCTT GAGAATGTAT	1860
CGTATTATCA ATAATATTGA AACAACTCTG CTAACGGTTA TATGCTTAAT GTTATTGTTT	1920
TTTTTAAGAC GTTTATTTGA TAAAGATAAG TAAATAGATG TTAAGTAAAA ATGTAGAATA	1980
TAAAGGAGGT GCAATGAGTA TGATTGAAGT TAGCCATTTA TCAAAAAGTT TTGGTGATAA	2040
AATAGCTTTA AATAATATAA GCTTCACTGT TAAAGAAGGT TAGATTTTTG GATTTTTAGA	2100
ACCATCTGGT TCTGGAAAGA CCACAACGAT TAATATTCTG ACTGGGCAGT TCCTTGCCGA	2160
TAAAGGACAA TCTATTATTT TGGGACAAAA ATCTCAAAAT TTAACAAGCG GTGAATTAAA	2220
GAGAATTGGA TTGGTTAGCG ATACAAGTGG ATTTTATGAG AAAATGTCTC TGTATAACAA	2280
TCTTCTTTTT TATAGTAAAT TTTATAATAT TAGTAAATCA CGTGTGATA ATTTGTTAAA	2340
CCGAGTAGGA TTATATGATA GTCGCAAGAT GGTAGCAGGA AAATTATCCA CTGGAATGAG	2400
GCAACGAATG CTTTTAGCAC GAGCTCTTAT CAACAACCCC GCTGTACTCT TTCTGGATGA	2460
ACCGACCTCA GGTCTAGATC CCACAACCTC TCGAACAATT CATGAGTTAA TTTTAGAATT	2520
GAAAACAGCA GGGACAACGA TTTTCTAAC GACTCATGAT ATGAATGAAG CAACTCTTTT	2580
ATGTGATTAT GTTGCCTTAT TAAATAAAGG GAAATTAGTT GAGCAAGGAG CTCCTTCTGA	2640
ACTCATTCAA AGATATAATA AAGATAAAAA GATTAAAGGT ACAGATTATA ATGGGAATCA	2700
GATAACTTTT GATTTTACAT CACTAGAACA GGTATCTCAG ACTGATCTGG AAAATATTTT	2760
TTCAATTCAT TCATGTGAGC CTACTTTAGA AGATATTTTT ATCACATTAA CAGGAGGAAA	2820
GCTAAATGCT TAAACGGTTT CTGGCTTTGG TATGGTTGCG TTGTCAAATC ATCCTTTCCA	2880
ATAAGAGTAT TTTATTGCAA GTTTTAGTGC CTTTTGCTTT CACATATTTT TATAAATATC	2940
TTATGGAAAC ACAGGGGAAG GTCAACGATC AACAGGCATT AGTTCTTTTG ATGATGTGTT	3000
TACCTTTTTT TTTTCTTTG GCTGTTGGAA GTCCTATAAC TATTATCTTG TCTGAAGAAA	3060
AAGAAAAGTA CAATTTACAA ACTCTTCTGT TGAGTGGTGT TAAAGGCTCC GAATACATTT	3120
TATCAACTAT GTTCTTCCT TTTTGTCTAA CTTTTGTGAT TATGGGAACT ACTCCTCTTA	3180
TTTTAGGAGT TACAATTGTA CATACTTTTA ATTATATTAC AATCGTTCTT CTAACCTCTT	3240
TATCCATCAT TTTATCTAT TTATTGATAG GTTTAACCGC GAAGAGCCAA GTAGTAGCTC	3300
AGGTTATCAG TCTTCTGCT ATGATTTTAG TTGCTTTCTT ACCGATGCTA TCTGGTTTGG	3360
ATAAGACAGT TGCGAAGATA ACAGATTATA GTTTTATGGG ACTATTTACT AAGTTTTTCA	3420

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CAAAATGGGA GGAATTTTCA TGGAAATAAAA CTCTAATTCC TAATCTAACA CTACTTATTT	3480
GGATTGTTCT TCTATTAAC TTAATTACGA TAACTATTAG GAAAAAGAAA ATTTCTTAAT	3540
TGAGTTATTT TAATGATTAT AAACACAAGT GGGAAGGAAA AAATGAACTG ATCTTTTGA	3600
CAGCAATTCT ACAGAATAGT CTTATTGCTA TATTTTGATT TGAGTGACG AAAAAAGAAA	3660
AATAACAATA GTGCTCATA TAATTGCAGA AGTTTTGGGT GATAAGATAA CTGATAAATT	3720
GCAATAAAAA ATGCAACATT TTAAATCTC CTCTATAAGT GCTTCAAAAA GTGCTTCAA	3780
ACCTGTCTTG TAATCCAAGT ATTTTGGGG ACGGTGATTA ATAAGCTAGC AAAGCATCAT	3840
TAAGGATTTT TTCGGTAATT GTTGCCAAAT CGGTTAAGA AAATACTCAC GAAGAAGTCC	3900
ATTCGCATTC TCATTACTTC CCCTTTGCCA AGATGAATAG GCATCCGCAA AATAAAACAG	3960
AATTCCCATT TGTTCATTA AAGGGTAACA AGCAAACCTCT TTTTCTCTGT CCGAAGTGAA	4020
AGTCTTTAAC TATCTTTTG GAAAGAGTCT TGTGAGGTGT TCAATAGCAG TCAACATGGA	4080
TTTAGCTGTT TTTACTTGAC AAGTGCTAGT AGAAATAATA GAATAGTAAA AAACCTTTAA	4140
AGCAGTCCAG AGAGGCAGCT AAGGTTAGAC GGTGAAAGGG TGGAGACTAC CCATTTTTCG	4200
TGGAACCTTG CTGTTGGCAG GTTCCTTTT TCGTGGCTTC TGTTGGCCAG ACTCTCTCAC	4260
TAGTAAAGGT AAAAGGAGAA ACCTATGCCA GAACATCGTC CAATCATTGC TCTTGATTTT	4320
CCTAGTTTTG AGGCGGTCAA GGAATTTTTA GCTCTTTTCC CAGCAGAAGA AAGCCTTTAT	4380
CTCAAGGTAG GGATGGAGCT TTATTACGA GCGGGGCCTG AGATTGTGTC CTACTTAAAA	4440
GGTTTGGGTC ATAGTGCTT TTTGGATCTC AAACCTCATG ACATTCCTAA TACAGTCAAG	4500
TCAGCCATGA AGATCTTGTC TCAGCTGGT GTCGATATGA CTAATGTCCA TGCGGCTGGT	4560
GGTGTAGAGA TGATGAAGGC GCGCGTGAA GGTCTTGGGA GTCAAGCCAA ATTGATCGCT	4620
GTAACTCAGC TCACATCAAC GTCAGAAGCT CAGATGCAGG AGTTTCAAAA TATCCAAACC	4680
AGTCTGCAAG AGTCTGTGAT TCACTATGCC AAGAAGACAG CTGAAGCTGG CTTGGATGGT	4740
GTTGTTTGCT CGGCTCAGGA AGTACAAGTC ATCAAGCAGG CTACCAATCC AGATTTTATC	4800
TGTCTGACAC CAGGGATTCT TCCAGCTGGT GTTGCACTTG GAGATCAAAA ACGAGTCATG	4860
ACACCTGCTG ATGCCTATCA AATCGGCAGT GACTATATCG TAGTGGGACG TCCCATTACC	4920
CAAGCTGAGG ATCCTGTTGC AGCTTATCAT GCCATCAAGG ATGAATGGAC ACAGGACTGG	4980
AATTAAAGAA CTAGATTAGA AAAATAAAG GAGAATACCA TGACACTTGC TAAAGATATC	5040
GCTAGCCACC TCTTGAAAAT CCAAGCCGTT TACCTCAAAC CAGAGGAACC CTTCACTTGG	5100
GCATCTGGTA TCAAGTCACC GATTTACACT GATAATCGTG TGACACTAGC CTATCCAGAA	5160

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ACTCGTACCC TAATTGAAAA TGGTTTTGTG GAAGCTATCA AAGAAGCCTT TCCTGAAGTA	5220
GAAGTGATTG CAGGAACTGC AACAGCAGGG ATTCCACACG GAGCCATTAT TGCTGATAAG	5280
ATGGACTTGC CTTTTCCTA CATCCGTAGT AAACCAAAG ACCACGGAGC TGGTAATCAA	5340
ATCGAAGGTC GCGTAGCTCA AGGTCAAAAA ATGGTAGTGG TTGAAGACCT TATTTCAACG	5400
GGTGGTTCAG TTCTTGAAGC TGTAGCAGCA GCCAAGCGAG AAGGAGCAGA TGTAATTGGA	5460
GTTGTAGCGA TTTTCAGCTA CCAATTGCCA AAAGCAGATA AGAACTTTGC AGATGCTGGT	5520
GTTAAACTTG TGACGCTTTC AAATATAGC GAGCTTATCC ATCTAGCCCA AGAAGAAGGT	5580
TACATCACGC CAGAGGGCCT TGATCTTCTA AAACGCTTTA AAGAAGACCA AGAAAATTGG	5640
CAAGAAGGTT AGGTCAGTAA GATAAAGAGA GACGAGGCTA CCGAGTCTCT TTTACCATT	5700
TATTTAAAT ATGACAG	5717

(2) INFORMATION FOR SEQ ID NO: 103:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 5558 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 103:

CCTGGACTTT CTAAATGAA ATCTTGGCAG CTGGATCAAG CCCTTCATGA GCATTTTTC	60
GAAGAAGAA TAGCTGGTCA CTTTCATGTC CTTCTATGGA CTTTTTTTAC AATGGCATTG	120
CTATCACACC CAATACCTAT CTAAGCGCCT GGTTCTGAAA CTTTATTGCA GCTCTTCCTC	180
TAAATTTCTT AATTGTTGAA CCAATTGCCC GTTTTATACT AAGTTCTTTT CAGAAACCAT	240
TTACTGGGGA AGAAGTTGAA GATTTTCAAG ATGATGATGA AATCCCACT ATTATCTAAG	300
CCAGTTCTGT AAATACTAA TATTTGAAAT CCACTTCCTT TTAGGGTGCA ATGGTTATAA	360
ATGAATTTT GAGAGGATCA GAATGAAAA ACTAGCAACC CTTCTTTTAC TGTCTACTGT	420
AGCCCTAGCT GGGTGTAGCA GCGTCCAACG CAGTCTGCGT GGTGATGATT ATGTTGATTC	480
CAGTCTTGCT GCTGAAGAAA GTTCCAAAGT AGCTGCCCAA TCTGCCAAGG AGTTAAACGA	540
TGCTTTAACA AACGAAAACG CCAATTTCCC ACAACTATCT AAGGAAGTTG CTGAAGATGA	600
AGCCGAAGTG ATTTTCCACA CAAGCCAAGG TGATATTCGC ATTAACTCT TCCCTAACT	660
CGCTCCTCTA GCGGTTGAAA ATTTCTTCAC TCACGCCAAA GAAGGCTACT ATAACGGTAT	720
TACCTTCCAC CGTGTATCG ATGGCTTTAT GGTCCAAACT GGAGATCCAA AAGGGGACGG	780
TACAGGTGGT CAGTCCATCT GGCATGACAA GGATAAGACT AAAGACAAAG GAACTGGTTT	840

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CAAGAACGAG ATTACTCCTT ATTTGTATAA CATCCGTGGT GCTCTTGCTA TGGCTAATAC	900
TGGTCAACCA AACACCAATG GCAGCCAGTT CTTTCATCAAC CAAAACCTCTA CAGATACCTC	960
TTCTAAACTC CCTACAAGCA AGTATCCACA GAAAATTATT GAAGCCTACA AAGAAGGTGG	1020
AAACCCTAGT CTAGATGGCA AACACCCAGT CTTTGGTCAA GTGATTGACG GTATGGATGT	1080
TGTGGATAAG ATTGCTAAGG CCGAAAAAGA TGAAAAAGAC AAGCCAACTA CTGCTATCAC	1140
AATCGACAGC ATCGAAGTGG TGAAAGACTA CGATTTTAAA TCTTAAAAAC CAAAAAATA	1200
CAGTATCCAC ATTCGGTACT GTATTTCTTT TACTCTCATT CTTAAGTTAA ATTATTAAAA	1260
TCCCATATTT GGTCTATCCA GCCTTCATAA AAGTCTGGCT CGTGGCAGAC CATAAGGATA	1320
GATCCCCTAT ATTCTTTGAG AGCGCGTTTG AGCTCATCCT TTGCATCCAC ATCCAAATGG	1380
TTGGTCGGCT CGTCCAGCAC TAAAACGTTG TTTTCACGAT TCATCAAGAG ACAGAAACGA	1440
ACCTTGGCTT GCTCTCCCCC TGATAATACT TGAATCTGGC TTTCAATATG TTTGGTTGTC	1500
AAACCACAAC GGGCAAGGGC TGCACGGACT TCTGCTTGAT TAAGGGCAGG AAAGGCATTC	1560
CAGACAGCTT CAAGAGGAGT TTGGCGATTA CCGCCTTCTA CTTCTGCTC AAAATAACCA	1620
AGTTCTAAAT AATCTCCACG CTCCACTTCC CCAGCGATTG GCGAGATAAT GCCCAAGAGA	1680
CTCTTCAAGA GAGTTGTTTT TCCAATACCA TTAGCACCAA TAATCGCAAC CTTTTGATTG	1740
CGTTCGAAGG TAAGATTTAA AGGCTTAGTA AGAGGACGGT CGTAACCAAT TTGCAAGTTC	1800
TTGGCTTGGG AGATAAAGCG CCCTGGTGTA CGAGCTGGTT TGAAATCAAA GGATGGTTTT	1860
GGTTTCTCAC TTTGGAGTTC GATAATATCC ATCTTATCCA ATTTCTTTTG ACGAGACATA	1920
GCCATATTAC GAGTTGCAAC ACGGGCTTTA TTACGAGCCA CAAAGTCCTT GAGGTCTGCA	1980
ATCTCTTTCT GCTGGCGTTC GTAGGCTGCC TCTAGCTGAG ATTTCTTCAT AGCATAAACT	2040
TCTTGAACT GGTAGTAGTC ACCAGAGTAA CGCGTCAGCT GTTGATTTTC CACATGATAG	2100
ACAATATTAA TAACGTCATT GAGGAATGGA ATATCGTGCG AAATGAGAAC AAAGGCATTC	2160
TCATAGTTTT GGAGATAGCG CTTGAGCCAA TCAATATGCT CAGCATCCAA GTAGTTGGTC	2220
GGCTCGTCCA ACAGCAAGAT ATCAGGCTTT TCAAGGAGAA GTTTTGCCAA AAGCACCTTG	2280
GTTCTTTGCC CACCTGACAA AGAAGTTACA TCCGTATCCA TGCCAAAGTC CATAACACCA	2340
AGAGCACGCG CTACTTCGTC AATCTTAGCA TCCAAGGTAT AGAAATCACG ACTCTCCAGA	2400
CGGTCTTGAA GTTCTCCTAC TTCTTCCATG AGAGCATCAA CATCCGCGCC GTCTTCAGCC	2460
ATTTTCATAT AGAGGTCATT GATACGAGCT TCAGCTTTGA AAAGCTCATC AAAAGCCGTA	2520
CGGAGAACAT CACGCACCGA CTGTCTTTCA GCAAGGACAG AGTGCTGATC CAAGTAACCA	2580

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GCCGTCACAT ATTTGGACCA CTCAACCTTT CCTTCATCTG GCAGCATTTT ACCAGTCACG	2640
ATACTCATAA AGGTTGATTT TCCTTCACCA TTGGCACCGA CCAGGCCGAT ATGTTCTCCC	2700
TTGAGGAGAC GGAAGGACAC ATCTTCAAAA ATTGCACGGT CACCAAAACC GTGACTCAGA	2760
TTTTTAACTT CTAAAATACT CATTTTAATT CCTTACCTTG TTTTATGTA ATCGTTTATA	2820
AAGGAGCCAA GCCAGATAGC CACCCAAAGT GTTGGTCCAC AAATCATCAA TCTCAAAGAC	2880
GCGATTGAAA TCAAAGAAAA AGTCCAAGAT TAATTGCGTA CACTCGATTG CAAGACTCAC	2940
AAGAAACTA AAAAGAAGGA CCTTTTTTGT TTTCCGCAA TTTGGAAATA GATAAAGGAG	3000
TTGGAAAATC AGAGGAAAAA ACAAGAAGAC ATTGAGGATA TTTTGTAATA AAATCCAACA	3060
TAATTGTCCA ATGTCACTCA CTTCGCCAG TTTCCAGAGA GAATTGAAAG GAGTCAAAAG	3120
AAAAACCAGG CGTCCAAGAT GCTGAATACC TGGAGTTCCC ACTCCCACGG TAGATTGTTT	3180
TTGAGGAGTA AAGCAAAAAC AGACAATGCA AATGCTATAG AAAATGACTC CCCAGACCAA	3240
AATATGATTA TAAGTCTTCT TCATCATTA GGATTTACCG CTGCGACTGC CTTCTGGCGG	3300
TCACGTTTCA TTGTGTTAGA GCGCAATTGT CCACAAGCTG CGTCAATATC TGTACCATGC	3360
TCTTGACGAA CCACACAGTT GACCCCTTTT TTCTTAAGCG TATCATAGAA AGCCAACACG	3420
CACTCTTTGG GACTACGGCT ATATTGGTCA TGCTCACTAA CTGGGTTATA AGGAATCAAG	3480
TTTACATAAG ACAATTTCTT GATGTTCTTG AGCAATTCAG TCAATTCCAA GGCTTGTCT	3540
ACACCGTCGT TGACTTCATT AAGCATGATA TATTCAAAGG TTACACGACG GTTGTGTGTC	3600
TCAATGTAGT ATTCAATAGC AGCAAAGAGT TTTTCAATCG GAAAGGCACG GTTAATCTTC	3660
ATGATACTTG AACGAAGTTC ATTGTTAGGT GCGTGAAGAG ACACGGCAAG ATTGACCTGA	3720
ACCCCTTCAT CAGCAAAGTC ACGAATTTTA TGAGCCAAAC CTGAGGTTGA AACCGTGATG	3780
TGACGAGCAC CGATAGCCAT TCCTTTATCA TCATTGATAG TACGAAAGAA ATTCAAGACA	3840
TTGTTGTAAT TATCAAAGGG CTCACCGATT CCCATGACAA CGATATGGCT GATGCGTTCA	3900
TCCTGACCAC GTCATCAAA GTATTTCTGA ACCAGCATGA TTTGCGCTAC GATTTACCG	3960
TTATTGAGGT CACGTTGCTT CTTAATCAAA CCAGAGGCAC AGAAGGTACA ACCGATATTA	4020
CAGCCGACCT GAGTGGTCAC ACAGACAGAT AAACCATAGT GTTGACGCAT GAGTACAGTC	4080
TCAATTAACA TACCGTCGGG CAATTCAAAG AGATATTTGA CTGTACCATC AGCAGACTCT	4140
TGCACAATAC GTTGTTCAT GGGATTGACC ACAAAGTGGT CATTGAGCTT AGCAATCAAA	4200
TCCTTGAAA GGTGGTCAT TTCTTCAAT GACTGCACAC GTTTACGGTA GAGCCATTCC	4260
CAGATTTGAT CTGCACGGAA TTTCTTTTCT CCCTGCTCCA ATACCCATTC CTGCATGGTT	4320
TGATGTACCA AACTATGAAT TGAGGGTTTC ATTTCTTCTC CTTATTCTCT ACTCACTTCT	4380

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GACGAATGAC AAAATGACGT TGTCCCTTGT CGTCTTTCTG ACGACGTCTA TTTTCTTAT	4440
CTGCATTCTGA CTTTCGTTTA GTTTGAGTCG GTTCTTTTCC TTTTCTAGAA GGTGTTTCTT	4500
CTTCCGTCTT ACGCATTTTC TTGTCAAATG ATGCTCGCTT AGGGGCTTCA TTTTCTAAGA	4560
CAAAATAGGC ACAACCATAA CTACAATACT CTAAAAGGTA GTCTTGTAAG CGACTGATTT	4620
TTTCAAGTTT TTCTTCTGTT CGGTCATCCT TGTAAAAACC TCGTAGGCGA AGCTGTTTCGT	4680
TGCTCCAGTC CCCCACGATA TAATCAAACCT TGGTTAATAC TTCTGAAAAA CGCTGATTAA	4740
AAGTCGTCAC ATCAAAGGCA TCCTTGATAT TTTCAACCAA GGAAAAAGCT ATCCCTTCCG	4800
TTTCGACCTT GTCCCCGTGT AAATGGAACCT CCGGACCAGG AAACCTTGTTA TAGTTGTATA	4860
ATTCAGGTGC AATTTCTTTT CGCATAGATA TCCTTTTTTC ACGATTACTT AATACTTTAT	4920
TCTACCATAA TTTCTAGCAG TTAGCACGTT TCTCATAAAA ATGAAAAAAG TCTGACGATT	4980
TTGTCAGACC AGAATCTTAT AACCTAAAAA GAGAAGAACA ATTCTTCCCT CCAACTATCA	5040
TTATTTAGCA GCTGCGTACA ATTCATCTAC TTTATTCCAG TTGATTACTG AAAAGAAAGC	5100
TTGATGTAG TCAGGACGCA CGTTGCGGTA TTTACGCTAG TAAGCATGTT CCCAAACGTC	5160
CAAGCCCAAG ATTGGTTTTT TACCTTCTGA GATTGGTGTG TCTTGGTTTG CTGTTGAAGT	5220
CACTTCAAGT TTCCCTTCTT TGTTGACAAC CAACCATGCC CAACCTGAAC CAAAACGAGT	5280
TGTTGCTGCT GCAGTGAAGG CTGCTTGGA TTTCTCAAAT GAACCAAATG TTGCATCGAT	5340
TGCTGCTGCC AGTTCTGCTG AAGGAGCTGT TTTCTCGGGA GTCATCAATT CCCAGAAAAG	5400
AGCGTGGTTC AAGTGTCGC CACCATTGTT GATAAGTGCT TGACGGATAT CAGCTGGGAT	5460
AGATTCTACA TCAGCAAGCA AGGCTTCAAG GTCTTCACCG ATTTCAGGGT GTTTTCTAA	5520
AGCTGCATTG GCATTGTTGA CATAAGTTTG ATGGTGTT	5558

(2) INFORMATION FOR SEQ ID NO: 104:

- (i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 6735 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 104:

GGAATTGTAA ATATCATATT GTTTTTGCAC CCAAATATCG TCGTCAAATC ATTTATGGCA	60
GATACAAAGC TAGTATCGGA AGAATCATAC GTGACTTATG TGAGCGTAAG GGTGTAATAA	120
TCCATGAAGC GAATGCTTGT TCAGACCATA TTCACATGCT TATCAGTATT CCTCCGAAAC	180

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TTAGTGTTTC GTCCTTTATG GGCTATTTAA AGGGCAAGAG CAGTTTGATG ATTTTGTGATA	240
AGCATGCGAA TTTAAAATAC AAATATGGCA ATCGCAAGTT TTGGTGTAGA GGCTATTATG	300
TAGATACGGT AGGCCGTAAT CAGAAAGTGA TAGCTGAATA TATTCAGAAT CAATTACAAG	360
AAGACAGAGT AGCAGACCAG CTCACGTTAT TCGAGTCAGT AGATCCGTTT ACTGGCGAAA	420
TAAATAAGAG GAAGTAACTA AGGTGCTTTA GCACCTGCTC GGGAAAGTGG TGC GCGAGGA	480
AGCTATTTTCG GTGGGCCCTTT GGCCCTGGCC GGTAGAAGCG GCTTATAGCC GCAGAACAAA	540
CCACCAGTTC AACTGGTGG TTTTGATTTA AAAAAGTTGA TACATAAAAA TAAAAGTCTA	600
TATAAAGGAT GGTAAGATTC CTGTTGTCCG ATTTGGACAA TATCCTAAAT AGTTACAATA	660
TATGGTCTAT ACTTTTCTT AGGAGAAAGC TAGATGTACA GACGTTTGAG AGATTGAGG	720
GAGGATCATG ATCTGCCCCA AAAGCAAATA GCTACAATAC TTTCGTTTAC AAATTCAGCT	780
TATGCCAAAA TTGAACGGGG TGAGCATGCG TTGACGGCTG ATGTATTGGT TAAACTCTCA	840
GATTTCTATG ACGTCAGTAC AGACTATTTA TTGGGATTAA CTGATTTTCC TGATAAAATT	900
CGCTTTAGAA AATAATCTCC TCAATTTTAT AGAGTTTGAA AATGAGTGAG ATTTTATTAT	960
TGCCCTTTGA CAACTGAATA GCCTAAAATG GTACTTTTCT CATTGTGGA GCAAATTTGA	1020
ATGGCTCGCC ATGATAAGAG CGATTTTAAA ATCATCAATA AAATAGAGCG ATACTTTATA	1080
TGCCATGATA CAAATGATAT ACAATGATAC TTCTGACCGT TCAGCCTGCC AACGTAAAAG	1140
AGCAGCAAGT GAAATCTTAA TGATGACTTC ATCAGTCATG CCACGTTGAA TGTGTGAGTT	1200
TGTTAGATAA ACGCAATTAA TCCTCAAAAG GTTCCCCGAA CCTTTTGAGT TCTACAGACG	1260
CATCACGTGG AGTGTGTAAG CTTGTTGCTA AAAGCGTAAA AACCTTGGA CGAAAGGAAT	1320
AATAGACTTT CTGCGAAACA AAAATATAAT ACAATAAAC TATGAATGAT GAAGCAAGTA	1380
AACAATTGAG CGATAGCCGT TTCAAGATCC TTGTAGGTGT TCAGCGCACG ACTTTTGAAG	1440
AGATGTTAGC TGTGTTAAAA ACAGCTTATC AACGTAAACG CGCAAAGGT GGACGAAAAA	1500
GCAAATTAAG CCTAGACGAT CTCCTTATGG TAACTATTCA ATACATGCGA GAATAGAGCA	1560
CTTATGAACA AATTGCGGCT GATTTTGGCA TTCACGAAAG CAACTTAATC CGTCCGAGTC	1620
AATGGGTTGA AGCAACTCTT ATTCAAAATG GTTTTACGAT TTCAAATTCT GCCTTAATTC	1680
TGTAAAAACA GTAAATTCG AAGGATTGTA AGGTAAGAGT TTTTCTTTT CTGAAAAAAT	1740
GGTATAATAG CAATCAAAAC TAGAAAATAA AACGGAATTT GGAACAGATT TGTCTGTATC	1800
CTAGTAGAGT GGTGATACTA TGAAGATTAG TAAGAGGCAC TTATTAAATT ATTCCATCTT	1860
GATTCCCTAC TTGCTTTTAT CTATTTTGGG CTTGATTGTC GTCTATTCTG CCACCAGTGC	1920
TATTTTAATT GAAGAAGGCA AGAGCGCCTT GCAGTTGGTT CGAAACCAAG GAATCTTTTG	1980

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GATTGTTAGT	TTGATACTGA	TTGCCTTAAT	TTATAAATTG	AGACTAGATT	TTTTGAGAAA	2040
TGAGCGACTA	ATCATTTTAG	TTATATTAAT	AGAAATGCTT	TTATTGTTCT	TGGCTCGTTT	2100
TATTGGTATT	TCCGTAAACG	GGGCATACCG	TTGGATTTCG	GTTGCAGGAA	TAACATATCA	2160
GCCAGCTGAG	TACTTAAAAA	TCATTATTAT	TTGGTATTTA	GCTCACCGAT	TCTCCAAACA	2220
GCAAGAAGAA	ATAGCTACTT	ATGATTTTCA	AGTTTTGACT	CAAAATCAAT	GGCTTCCCCG	2280
TGCTTTTAAT	GATTGGCGAT	TCGTTCTCCT	AGTTCTGATT	GGAAGTTTGG	GAATTTTCCC	2340
TGATTTAGGA	AATGCGACTA	TTTTAGTCTT	GGTTTCCTTG	ATTATGTATA	CAGTTAGTGG	2400
AATCGCTTAT	CGCTGGTTTT	CAACCATCTT	GGCGCTCGTA	TCTGCCGCTT	CTGTCTTGT	2460
CTTGACCACT	ATCAGCCTAA	TCGGTGTGTA	GACCTTTTCA	AAAATTCAG	TATTCGGCTA	2520
TGTAGCCAAG	CGCTTTAGTG	CCTTTTTTAA	TCCTTTTGCC	GATCGTGCTG	ATGCAGGTCA	2580
CCAGTTAGCT	AATTCTTATT	TTGCCATGGT	CAATGGCGGT	TGGTTTGGTC	TAGGTCTTGG	2640
AAACTCGATT	GAAAAACGAG	GTTATTTGCC	AGAAGCTCAT	ACAGACTTTG	TCTTTTCTAT	2700
CGTGATTGAA	GAATTTGGCT	TTGTTGGTGC	CAGTCTTATT	TTAGCTCTCT	TGTTTTTCAT	2760
GATTTTGCGG	ATTATCTTGG	TCGGTATCCG	AGCGGAGAAT	CCTTTCAATG	CCATGGTTGC	2820
ACTCGGTGTC	GGAGGGATGA	TGTTGGTTCA	GGTATTTGTC	AATATCGGAG	GGATTTCCGG	2880
CTTGATTCCA	TCTACAGGAG	TGACTTTCCC	CTTCTTATCC	CAGGGTGGAA	ATAGTCTTCT	2940
AGTCTTATCA	GTGGCAGTAG	CCTTTGTCTT	AAATATTGAT	GCCAGTGAAA	AACGCCCTAA	3000
ATTGTACCGA	GAATTGGAAA	ATCAACCAAT	GAACCTTCTG	TTGAAGTAGG	ATAAAGAAAG	3060
GATAGTTTAT	GTCTCTTCAA	AAATTAGAAA	ATTATAGTAA	TAAAAGTGTT	GTGCAAGAAG	3120
AAGTCTTGAT	TCTAACAGAA	TTACTGGAAG	ATATTACTAA	AAATATGCTT	GCCCCAGAGA	3180
CCTTTGAAAA	AATAATACAG	TTGAAAGAAT	TATCAACGCA	GGAAGATTAT	CAAGGTCTAA	3240
ACCGTCTAGT	GACTAGCTTA	TCAAATGATG	AAATGGTCTA	TATTTACGCG	TATTTCTCTA	3300
TCTTGCCCTCT	TTTGATTAAT	ATTTACAGAG	ATGTGGATTT	AGCTTATGAA	ATCAATCATC	3360
AAAATAATAT	TGATCAGGAC	TATTTAGGTA	AATTATCTAC	AACGATTAAA	TTGGTAGCAG	3420
AAAAGGAAAA	TGCCGTTGAG	ATCCTAGAAC	ACTTGAATGT	TGTCCCTGTT	TTGACAGCCC	3480
ATCCAACACA	AGTGCAACGC	AAAAGTATGT	TGGATTTAAC	AAATCATATT	CATAGTCTTT	3540
TGCGTAAATA	CCGTGATGTT	AAGTTGGGGT	TGATCAATAA	AGATAAATGG	TACAATGATT	3600
TGCGTCGTTA	CATCGAAATT	ATCATGCAGA	CAGACATGAT	TCGTGAGAAA	AAATTAAAAG	3660
TGACTAACGA	AATCACGAAT	GCTATGGAAT	ATTATAACAG	CTCCTTTTTG	AAAGCTGTAC	3720

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CTCATTTGAC	GACGGAGTAT	AAGCGCTTAG	CGCAAGCGCA	TGGTCTGAAT	TTAAAACAGG	3780
CTAAACCAAT	CACCATGGGT	ATGTGGATAG	GTGGTGACCG	TGATGGAAAT	CCATTTGTTA	3840
CAGCAAAGAC	CTTGAAGCAG	TCTGCACTCA	CTCAGTGTGA	AGTCATCATG	AACTACTATG	3900
ATAAAAAGAT	TTACCAACTT	TATCGTGAAT	TTTCTCTTTC	AACTAGCATT	GTCAACGTCA	3960
GCAAGCAAGT	CAGAGAAATG	GCTCGTCAAT	CCAAGGATAA	CTCGATTTAC	CGCGAAAAAG	4020
AGCTTTACCG	TCGTGCCTTG	TTTGATATTC	AATCAAAAAT	TCAGGCAACT	AAAACCTATC	4080
TGATTGAGGA	TGAAGAAGTT	GGGACTCGTT	ATGAAACCGC	CAATGATTTT	TACAAGGATT	4140
TGATTGCCAT	TCGAGATTCT	CTACTAGAAA	ATAAGGGCGA	GTCCTTGATT	TCAGGTGATT	4200
TTGTGGAATT	ATTGCAGGCA	GTAGAGATAT	TTGGTTTFTA	CTTAGCATCA	ATTGATATGC	4260
GACAAGACTC	TAGCGTCTAT	GAAGCCTGTG	TGGCAGAACT	CTTGAAATCA	GCAGGAATTC	4320
ATTCTCGTTA	TAGCGAGTTG	AGCGAAGAAG	AAAAGTGTGA	CCTTCTCTTG	AAAGAATTAG	4380
AAGAAGATCC	CCGAATTCTT	TCTGCGACTC	ACGCAGAAAA	ATCAGAATTA	TTAGCAAAAG	4440
AATTAGCTAT	TTTAAAGACG	GCTCGTGTTC	TGAAAGATAA	GTTGGGAGAT	GATGTCATCC	4500
GTCAGACCAT	CATTTACAT	GCAACCAGCC	TTTCTGATAT	GCTAGAATTA	GCTATTCTGT	4560
TAAAAGAAGT	AGGACTGGTG	GATACGGAAA	GGGCGCGTGT	TCAGATTGTT	CCCCTTTTTG	4620
AAACAATTGA	AGACTTGGAT	CATTCAGAGG	AAACAATGAG	AAAATATCTT	TCTCTTAGCC	4680
TTGCCAAAAA	ATGGATTGAC	TCACGAAATA	ACTACCAAGA	AATCATGCTT	GGCTACTCTG	4740
ACAGTAATAA	AGATGGCGGT	TACTTGTCAT	CATGTTGGAC	CCTCTACAAG	GCTCAACAAC	4800
AATTGACTGC	TATTGGAGAT	GAATTTGGCG	TTAAGGTTAC	CTTCTTCCAT	GGTCGTGGTG	4860
GTA CTGTCGG	TCGTGGTGGT	GGGCCAACCT	ATGAAGCCAT	TACATCTCAA	CCGCTCAAGT	4920
CTATCAAGGA	TCGTATCCGC	TTGACGGAGC	AGGGTGAAGT	AATTGGGAAT	AAATACGGTA	4980
ACAAAGACGC	CGCTTACTAT	AACCTTGAAA	TGCTAGTATC	GGCAGCTATT	AACCGTATGA	5040
TTACTCAGAA	GAAGAGCGAT	ACCAATACCC	CAAATCGTTA	TGAAACCATT	ATGGATCAAG	5100
TAGTGGACCG	TAGTTACGAT	ATCTACCGTG	ATTTGGTCTT	TGGTAATGAG	CATTTCTATG	5160
ATTATTTCTT	CGAGTCAAGT	CCAATCAAGG	CTATTTCAAG	TTTTAATATT	GGTTCTCGTC	5220
CAGCCGCTCG	TAAGACTATT	ACTGAAATCG	GTGGTTTGCG	TGCCATCCCT	TGGGTATTCT	5280
CATGGTCACA	GAGTCGTGTT	ATGTTCCCTG	GATGGTACGG	GGTTGGTTCA	AGCTTCAAGG	5340
AATTTATCAA	TAAAAATCCA	GAGAATATTG	CTATCTTACG	AGATATGTAC	CAAAATTGGC	5400
CTTTCTTCCA	ATCGCTTCTT	TCAAATGTTG	ATATGGTTTT	GTCAAAATCA	AATATGAATA	5460
TTGCTTTTGA	ATATGCTAAA	CTTTGTGAAG	ACGAGCAAGT	TAAGGCCATC	TATGAGACTA	5520

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TTTAAATGA ATGGCAAGTT ACTAAGAACG TTATCTTGGC TATTGAAGGA CATGACGAAC	5580
TCTTAGCTGA CAATCCATAT CTAAAAGCTA GTCTGGATTA CCGTATGCCT TACTTTAATA	5640
TTCTCAACTA TATTCAGTTG GAGTTGATTA AACGCCAACG TCGTGGAGAA TTGTCCAGTG	5700
ATCAAGAACG ATTGATTCAT ATCACCATCA ACCGAATTGC GACAGGATTG CGTAATTCAG	5760
GTTGATAATT TTCAAGAGTG AATGCTAAAA GTGAATATCA AAAAAATTCT AATAGACTAT	5820
TGACAAGTAG TTTAAAAATG ATATAATTTA ACCATTGAGA AAAGTAATCA TACAACTTT	5880
TTAGAGAGTC TGTGGTAGCT GAAAACAGAT AAGTGGCAAT GATGAAAATT GGGCTGAATG	5940
CTATTTAGAA TTTGAAATTA TAAAAATTCG GTAAGCACAC CTTACAGTGC ATCTCGTTAT	6000
TGCGAGACTG AGCGATAGGG AAATTCCCTA TAATTGAGGT GGTACCGCGC ATCGACGTCC	6060
TCACACAAGT TTTTGTGTG AGGATTTTTT TGATGGAGGT TAGTATGGAA AGAAAACGAT	6120
GGCGTCGCTT GTTTAGATAA GTGAAATATG TTAAAGGAAA TAAAAGGAG AAACAGAATG	6180
AAAAATAAAC GTTTAATTGG AATTATTGCT GCATTAGCAG TCTTAGTAGC AGGAAGCTTG	6240
ATTTATTCTT CAATGAATAA ATCAGAAGCT CAGAATAATA AGGATGAGAA GAAAATAACC	6300
AAGATTGGTG TGCTCAATT TGTGAGCCAT CCATCCCTTG ATTTGATTTA TAAAGGGATC	6360
CAAGATGGAC TTGCAGAAGA AGGATATAAA GATGATCAAG TTAATAATGA TTTTATGAAC	6420
TCAGAAGGTG ACCAAAGTAA GGTTCGACA ATGAGTAAAC AATTGGTTGC AAATGGGAAT	6480
GACCTTGTGG TTGGTATCGC AACACCAGCA GCCCAAGGCT TGGCTAGTGC AACAAAAGAC	6540
CTACCGGTTA TCATGGCCGC TATTACAGAC CCAATTGGTG CTAAGTTGGT TAAAGATTG	6600
AAAAACCAG GTGCAACGT TACAGGGGTA TCTGACCACA ATCCAGCTCA ACAACAAGTT	6660
GAAGTCATCA AGGCTCTGAC ACCGAATGTG AAAACAATCG GAGCTCTTTA CTCAAGTAGC	6720
GAAGACAATT CAAA	6735

(2) INFORMATION FOR SEQ ID NO: 105:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 6516 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 105:

CTAGAGGATC CCAGCAGGTA AATTGGCTTC AGCTGGCAAA AAAGTTGCCC TCCTTGAACG	60
CAGCAAGGCT ATGTACGGTG GAACTTGTAT CAACATTGGT TGTATCCCAA CTAAAACCTT	120

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GCTAGTTGCT GCTGAAAAGG ACTTGTCTTT TGAAGAAGTC ATTGCTACTA AAAACACGAT	180
CACTGGTCGC CTCAACGGTA AAAACTATGC GACTGTTGCT GGTACAGGCG TAGATATCTT	240
TGATGCGGAA GCTCACTTCC TTTCAAATAA AGTCATCGAA ATCCAAGCTG GTGATGAAAA	300
GAAAGAACTG ACTGCTGAAA CAATCGTCAT CAACACTGGT GCTGTTTCAA ACGTCTTGCC	360
AATCCCTGGA CTTGCTACAA GCAAAAACAT CTTTGACTCA ACAGGTATCC AAAGCTTGGA	420
CAAATTACCT GAAAAACTTG GAATCCTTGG TGGCGGAAAT ATCGGTCTTG AATTGCCCG	480
CCTTTACAAC AAACCTGGAA GCAAGGTCAC AGTCCTAGAT GCCTTGGATA CATTCTACC	540
TCGTGCAGAA CCTTCCATCG CAGCTCTTGC TAAACAATAC ATGGAAGAAG ATGGCATTGA	600
ATTGCTTCAA AATATCCATA CTAAGTAAAT CAAAAACGAT GGTGACCAAG TGCTTGTCGT	660
AACTGAAGAC GAAACTTACC GTTTCGACGC CCTTCTCTAC GCAACTGGAC GCAAACCAAA	720
TGTAGAACCA CTTCAACTTG AAAATACAGA TATTGAACTA ACTGAACGTG GTGCTATTAA	780
AGTAGACAAA CACTGTCAAA CAAACGTTCC TGGTGTCTTT GCAGTTGGAG ATGTCAACGG	840
TGGCCTTCAA TTTACTTACA TTTCACCTGA TGACTTCCGT GTTGTTTACA GCTACCTTGC	900
TGGAGATGGC AGCTATACAC TTGAAGACCG TCTCAATGTG CCAAATACTA TGTTTCATCAC	960
ACCTGCACTT TCACAAGTTG GTTTGACTGA AAGCCAAGCA GCTGATTTGA AACTTCCATA	1020
CGCTGTTAAG GAAATCCCCG TTGCAGCAAT GCCTCGTGGT CACGTAAATG GAGACCTTCG	1080
CGGTGCCTTC AAAGCTGTTG TCAATACTGA AACAAAAGAA ATTCTTGGAG CAAGCATCTT	1140
CTCAGAAGGT TCTCAAGAAA TCATCAACAT CATCACTGTT GCTATGGACA ACAAGATTCC	1200
TTACACTTAC TTCACAAAAC AAATCTTCAC TCACCCAACC TTGGCTGAGA ACTTGAATGA	1260
CTTGTTTGCG ATTTAAGTTG AGATTTAATC GTATCGAACA GCCCTCTTTG GGCTGTTTTT	1320
ACTTCTGCGG AATCTCAAAT CTGTCTTTCT CCTCTTTTAT GATATAATAG AAACATGAAC	1380
TTAAAACTA CTTTGGGCCT TCTTGCTGGG CGTCTTCCC ACTTCGTTTT AAGCCGTCTT	1440
GGACGTGGAA GTACGCTCCC AGGGAAAGTC GCCCTTCAAT TTGATAAAGA TATTTTACAA	1500
AACCTAGCTA AGAACTACGA GATTGTCGTT GTCACCTGGAA CAAATGGAAA AACCTGACA	1560
ACTGCCCTCA CTGTCGGCAT TTAAAAAGAG GTTTATGGTC AAGTTCTAAC CAACCAAGC	1620
GGTGCCAACA TGATTACAGG GATTGCAACA ACCTTCCTAA CAGCCAAATC TTCTAAACT	1680
GGGAAAAATA TTGCCGTCCT CGAAATTGAC GAAGCCAGTC TATCTCGTAT CTGTGACTAT	1740
ATCCAGCCTA GTCTTTTTGT CATTACTAAT ATCTTCCGTG ACCAGATGGA CCGTTTCGGT	1800
GAAATCTATA CTACCTATAA CATGATATTG GATGCCATTC GGAAAGTTCC AACTGCTACT	1860
GTTCTCCTTA ACGGAGACAG TCCACTTTTC TACAAGCCAA CTATTCCAAA CCCTATAGAG	1920

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TATTTTGGTT	TTGACTTGGA	AAAGGGACCA	GCCCAACTGG	CTCACTACAA	TACCGAAGGG	1980
ATTCTCTGTC	CTGACTGCCA	AGGCATCCTC	AAATATGAGC	ATAATACCTA	TGCAAACTTG	2040
GGTGCCTATA	TCTGTGAAGG	TTGTGGATGT	AAACGTCTCG	ATCTCGACTA	TCGTTTGACA	2100
AAACTGGTTG	AGTTGACCAA	CAATCGCTCT	CGTTTGTCA	TAGACGGCCA	AGAATACGGT	2160
ATCCAAATCG	GCGGGCTCTA	TAATATCTAT	AACGCCCTAG	CTGCTGTGGC	CATCGCCCGT	2220
TTCCTAGGTG	CCGATTTCGA	ACTCATCAAA	CAGGGATTGT	ACAAGAGCCG	TGCTGTCTTT	2280
GGACGCCAAG	AAACCTTTCA	TATCGGTGAC	AAGGAATGTA	CCCTTGTCTT	GATTAAAAAT	2340
CCAGTCGGTG	CAACCCAAGC	TATCGAAATG	ATCAAACCTAG	CACCTTATCC	ATTTAGCCTA	2400
TCTGTCTCTC	TTAATGCCAA	CTATGCAGAT	GGAATTGACA	CTAGCTGGAT	CTGGGATGCA	2460
GACTTTGAAC	AAATCACTGA	CATGGACATT	CCTGAAATCA	ACGCTGGCGG	TGTTCTGTCAT	2520
TCTGAAATCG	CTCGTCGCCT	CCGAGTGACT	GGCTATCCAG	CTGAGAAAAT	CACTGAAACG	2580
AGTAATCTGG	AGCAAGTTCT	CAAGACCATT	GAGAATCAAG	ACTGCAAGCA	TGCCTATATT	2640
CTGGCAACTT	ATACTGCCAT	GCTGGAATTT	CGTGAACCTG	TGGCTAGTCG	TCAGATTGTT	2700
AGAAAGGAGA	TGAACTAATG	GTTTATACTT	CACCTTCCTC	AAAAGATGGC	AATTACCCCT	2760
ATCAGCTCAA	CATTGCCAC	CTCTACGGAA	ATCTCATGAA	TACTACGGGG	ACAATGGAAA	2820
CATCCTCATG	CTCAAGTATG	TGGCTGAAAA	ACTGGGAGCC	CATGTGACCG	TTGACATCGT	2880
TTCTCTCCAT	GATGACTTTG	ATGAAAATCA	CTACGACATC	GCCTTTTTCG	GTGGTGGTCA	2940
AGACTTTGAA	CAAAGTATCA	TTGCAGACGA	CCTACCTGCT	AAAAAAGAGA	GCATTGACAA	3000
CTACATCCAA	AACGACGGTG	TAGTTCTGGC	TATCTGCGGT	GGTTTCCAAC	TATTGGGTCA	3060
ATATTATGTT	GAAGCTTCAG	GAAAACGTAT	CGAAGGGCTA	GGGGTCATGG	GACACTACAC	3120
GCTCAACCAG	ACCAATAACC	GTTTTATCGG	TGACATCAAG	ATTCACAATG	AAGATTTCGA	3180
TGAAACCTAC	TATGGATTTG	AAAATCACCA	AGGTCTGACC	TTCCTCTCTG	ATGACCAAAA	3240
ACCGCTGGGA	CAGGTTGTCT	ATGGAAATGG	AAACAACGAA	GAAAAGGTCT	GTGAAGGGGT	3300
TCATTATAAG	AATGTCTTTG	GTTCTACTTT	CCACGGGGCT	ATCCTCTCTC	GTAATGCCAA	3360
TCTGGCTTAT	CGCCTAGTTA	CTACTGCCCT	CAAGAAGAAA	TATGGTCAGG	ACATCCAACT	3420
CCCTGCCAT	GAGGACATTC	TCAGCCAAGA	AATCGCTGAA	GAGTACAGTG	ACGTCAAAAG	3480
CAAGGCTGAC	TTTTCTTAAA	CAAAGGAAAA	TGATATCAAA	GAACTCCGTT	ATCTTGTCGG	3540
AGTTTTTTGT	CTTTCTTTT	ACCCTTCTCC	CTTGCATTTT	CTCTCATTTT	TTGCCAAAAT	3600
AGAGGGGTAG	AAAGAAGGTA	GCATATGTCT	AAATTACAAC	AAATCCTAAC	ATATCTTGAA	3660

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TCAGAAAAAC TAGACGTCGC TGTCGTATCT GACCCCGTCA CAATCAATTA CCTCACTGGT	3720
TTTTACAGTG ATCCCCATGA ACGCCAAATG TTCCTCTTTG TCCTAGCAGA TCAGGAACCT	3780
CTCCTCTTTG TCCCAGCTCT TGAAGTAGAA CGTGCAAGTA GCACCGTTTC CTTCCCAGTA	3840
GTGGGCTATG TCGATTCTGA AAATCCATGG CAAAAAATCA AACATGCTCT TCCACAACTT	3900
GACTTCAAAC GTGTCGCTGT TGAGTTTGAC AATCTCATCT TGACCAAATA CCATGGTTTG	3960
AAAACAGTTT TTGAGACTGC TGAGTTTGAC AACCTCACTC CTCGTATCCA ACGCATGCGC	4020
CTCATCAAAT CAGCTGATGA AGTGCAAAAA ATGATGGTTG CAGGTCTTTA TGCTGACAAG	4080
GCTGTTCATG TTGGTTTGA CAATATTTCT CTTGATAAGA CTGAGACAGA TATCATCGCA	4140
CAAATCGACT TTGCCATGAA ACGTGAAGGT TATGAAATGA GCTTTGATAC CATGGTCTTG	4200
ACTGGTGATA ATGCTGCGAA TCCACACGGC ATTCCAGCAG CTAATAAGGT TGAAAATGAT	4260
GCTCTTCTCC TCTTTGACCT GGGTGTCTG GTCAATGGCT ATGCGTCAGA TATGACTCGT	4320
ACAGTCGCTG TCGGCAAACC AGACCAATTC AAGAAAGATA TTTACAACCT GACTCTTGAA	4380
GCCCAACAAG CTGCTCTGA CTTTATCAAG CCAGGTGTGA CTGCTCATGA AGTGGACCGC	4440
GCTGCCCCGTG AGGTCATCGA AAAAGCTGGT TATGGTGAGT ACTTCAACCA CCGTCTCGGG	4500
CATGGTATCG GTATGGATGT CCATGAATTC CCATCTATCA TGGAAAGGAAA CGACATGGTC	4560
ATCGAAGAAG GCATGTGCTT CTCTGTTGAA CCAGGTATCT ATATCCCTGG TAAAGTCGGT	4620
GTTCGTATTG AAGACTGCGG TGTTGTTACC AAGGATGGCT TCAACCTCTT TACAAGCACC	4680
AGCAAAGATT TGCTTTATTT TGATTAAACT ATATAGCCCC TATGCTTTCC TTTCAAATA	4740
TCTAGGGGCT ATTTTATTGT CATTTTCTG CTATTATGCT AAAGAAATTG GCTGCAATAA	4800
TCTAACCCTA AGTGTCTGGA ATGATAACGA GGGTGCTCTC CGCTTTTATC AAAGACAAGG	4860
GATGAAACCC CAAGAAACAA CAATGGAAAT GATAATTGAT TAAGAAGTCA TCTATCAAAA	4920
GATGTTAGAA AAAGTTCAAT TTCACTAGAA AATGAGGAAA ATCTCCCCAC AATAAACGC	4980
ATAGTATCAG GTATTGTGTA CTGACCCCAA ACAGTTAGAC AATTAATTTA TCCGAAGGAT	5040
TTAGTTCTGT ACTGCACAGG ACTAAGTCCT TTTAGTTTTA CCTTAATTCG TTTGTTGTIG	5100
TAGTAATCAA TATAGTCTAT AATGACTTGT TCCAATTGGT TAAGTGATTT AAATGTTTTT	5160
TCATAGCCAT AAAACATTTT GGATTTTAAA ATGCCAAAGA AAGATTCCAT CATACCGTTG	5220
TCTTGGCTGT TTCCCTTGCG TGACATAGAT GCTTGAATTC CCTTATTCTC TAGGAACCGA	5280
TGATAAGAAT CGTGTTGGTA TTGCCAGCCT TGGTCACTAT GGAGAATCGT ATTCTCGTAG	5340
TGCTTCTCTT TGAATGCCTG TTCCAACATT GTTTGTACTT ATTCTAAATT AGGCGAACAA	5400
GAAAGATTAA AAGCAATAAT TTCGCTGTTA AAGCCATCTA AAAGTGGTGA TAAGTAAAGC	5460

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TTTTGAGTAC TTGCTGGAAT GGCAAATTCA GTCACATCTG TGTAGCACTT TTCCATTGTT	5520
TTAGAGCCTT CAAATTGGGC TTGAATGAGA TTCTCTGCCT TCTTACCAAC GTCTCCTTTA	5580
TGAGAAGAAT ATTTTCGTTT CTTTCGCATT TTAGCTTGTA AATTGAGTAC TTTCATCAAG	5640
CCTTGAAGTC TTTTATGATT TACCAGATAA CCACGATTTT TTAGTTCTAA ATGAACCCGG	5700
CGATAAGCAT AATTTCCCTT GTGTTGATA AAGATGGATT GAATTTTCACT TTTAAGCTCT	5760
TGGTCTTTAT CTGTTTTGTC TAGCTGTTTC AAGTGATAGT AGTAGGTCCA ACGAGCTAGT	5820
TTAATGGCTT CTAGAAGAAG ATCTAACGAA AACTCAGTCA TTAATTCTTG AACAATTTCT	5880
GTCTTTCTTC TTTCTCTTTT TCCTCCTTCA ATCGGAGTTC TCTTAACTTT TTTAGGATGG	5940
CATTCTCCGC TCTCAGGTAC TCTCCCTCTT GTTTTCTCAA CAATAGTATA CCCGTTTTTC	6000
CTGTATTGTG CTAGCCAGTT AAGAAGTATC GTACGACTTG GGAGACCGTA TTCAAGAGAA	6060
ACTCTATCTT TAGTCCAGCC TTCATGTCAG ACTTTATTAA CCCCAATTAT TCACCCCAA	6120
TCTAAAAACC ATCCAGAATC CTTGCCTTAG CTTAGATCCT GGATGGTTTC TTTTTTCACC	6180
CAATGGGTGT TTTTACTAG ACAAAAAAGA GTTTCCCTT TATGGTATAA GTGTAGAAAA	6240
AAACACAAA AGAAAGGAAA CTCACATGAA CAGTTTACCA AATCATCACT TCCAAAACAA	6300
GTCTTTTAC CAACTATCTT TCGATGGAGG TCATTTAACC CAGTATGGTG GTCTTATCTT	6360
TTTTCAGGAA CTTTTTCCC AGTTGAACT AAAAGAGCGG ATTTCTAAGT ATTTAGTAAC	6420
GAATGAmCAA CGCCGCTACT GTCGTTATTC GGATTCAGAT ATCCWTGTCC AGTTCCTCTT	6480
TCAACTGTTA ACAGGTTATG GAACGGAATA TGCTTG	6516

(2) INFORMATION FOR SEQ ID NO: 106:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 14654 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 106:

TTTTCAACCC ATATCGTGGC TCCTGAATAC TACTTACTGA CAACTATGCT ATCAGAGACT	60
TCTCTACTTG TTTTCTATAT CATTTTCATC CATAGAAAAC AACTCATCCA CTTGGGACAT	120
ATCTTTAGCT ATACTGTTTCG ATACTCTCTC TTTTCACTTT CCTTTGTAGC AATTTATTTT	180
CTGATTAATT TCGTGTATCC TGTAATATG GTCATTAATT TGCCATTTTT GATTAATACT	240
GGTTTGATTG TCTTGCTATC AGCTATCTCT TATATTAGTC TACTTGCTTT CACAAAAGAT	300

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AGCATTCTCT ATGAATTTT AAACCATGTC CTAGCCTTAA AAAATAAATT TAAAAAATCA	360
TAGGAGTTTA AAATGAAACA ACTAACCGTT GAAGATGCCA AACAAATTGA ATTAGAAATT	420
TTGGATTATA TTGATACTCT CTGTAAAAAG CACAATATCA ACTATATTAT TAACTACGGT	480
ACTCTGATTG GGGCGGTTTC ACATGAGGGC TTTATCCCTT GGGACGACGA TATTGATCTG	540
TCCATGCCTA GAGAAGACTA CCAACGATTT ATTAACATTT TTCAAAGGA AAAAAGCAAG	600
TATAAGCTCC TATCCTTAGA AACTGATAAG AACTACTTTA ACAACTTTAT CAAGATAACC	660
GACAGTACGA CTAAAATTAT TGATACTCGA AATACAAAA CCTATGAGTC TGGTATCTTT	720
ATCGATATTT TCCCTATAGA TCGCTTTGAT GATCCTAAGG TCATTGATAC TTGTTATAAA	780
CTGGAAAGCT TCAAACTGCT GTCTTTCAGT AAACATAAAA ATATTGTCTA TAAGGATAGC	840
CTTTTAAAAG ATTGGATACG AACAGCCTTC TGGTTACTCC TTCGACCGGT TTCTCCTCGT	900
TATTTTGCAA ATAAAATCGA GAAAGAAATT CAAAAATATA GTCGTGAAAA TGGGCAATAT	960
ATGGCTTTTA TCCCTTCAAA ATTTAAGGAA AAGGAAGTCT TCCCAAGTGG TACCTTTGAT	1020
AAAACAATCG ATTTACCCTT TGAGAATTTA AGCCTTCCTG CACCTGAAAA ATTTGATACT	1080
ATTTTGACAC AATTTTATGG AGATTATATG ACCCTACCAC CAGAAGAAAA ACGCTTCTAC	1140
AGTCATGAAT TTCACGCTTA TAAATTGGAG GATTAGGATG CAATATTTAG AAAAAAAGA	1200
AATTAAAGAA ATTCAACTAG CCCTGCTGGA CTATATTGAT GAGACTTGTA AGAAACATGA	1260
TATTCCTTAT TTTCTCAGTT ATGGAACCAT GCTTGGAGCC ATCCGCCACA AAGGTATGAT	1320
TCCTTGGGAT GATGATATTG ATATTTCCCT TTATCGTGAG GATTATGAGC GTTTACTGAA	1380
GATTATTGAA GAAGAAAATC ACCCTCGCTA CAAGGTTCTT TCCTACGATA CATCTTCTTG	1440
GTACTTCCAT AATTTGCGAT CGATTTTGGG CACTTCTACT GTTATAGAAG ACCATGTTAA	1500
GTACAAGCGT CATGATACCA GCCTTTTCAT CGATGTCTTC CCAATTGATC GATTTACAGA	1560
CTTGAGCATT GTCGACAAGA GCTATAAGTA TGTGGCTCTT CGTCAACTAG CTTATATCAA	1620
AAAATCACGA GCAGTTCACG GTGATAGCAA ACTAAAAGAT TTTCTTAGAT TATGTAGCTG	1680
GTACGCTCTC CGATTTGTCA ATCCTCGCTA CTTTACAAG AAAATTGATC AACTAGTCAA	1740
AAATGCTGTA ACCAACACTC CTCAATATGA AGGAGGAGTT GGGATCGGTA AGGAAGGGAT	1800
GAAAGAAATC TTCCAGTTG ATACCTTTAA AGAACTGATT TTAAGTGAAG TTGAGGGCCG	1860
TATGTTGCCT GTTCCCAAAA AATATGACCA ATTTTAAACC CAGATGTATG GCGATTATAT	1920
GACACCACCA TCAAAAGAAA TGCAAGAGTG GTATAGTCAT AGCATTAAAG CTTATCGCAA	1980
AAACTGATTG AGGGGGATTA TACAACTAC TAAGATAGAG GTTATTCAAA AACATAATTT	2040
TAGTAGAAAA TGAAATACAT ATTCCACAAA TAAACGCAT CATATCAAGG TTTTGAAAA	2100

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ACCTTGATAT GATGCGTTTT ATAATTTTAA AGACTTTTTT CTATAGTAGA TTGAAATAAG	2160
ATGCGAACAA ATCAATTAGA AAATTCAAAT TAATTTATAG AAATATTTTA GTATTCCTGT	2220
GTACTGTTCT AAATTCAGTC TGCTATATCT TATTTTCTA TTAAATCGC TTCTGTAACA	2280
AAGCTACGAC TTTCAAGTAC CTTAAGCATG GCATTAGCTG TATCTAGCGC TGTGAAGAGG	2340
GGCACCCCGT GTTCAATGGC TGAACGACGA ATTTGCTCAC CATCTTCGTC AGCAGTTCGT	2400
TTTGTTCCTA CTGTGTTAAT GATAGCTTGA ATTCTTCCTT TGCGTACAAA ACTTGGGATA	2460
TCCTTATCGT CATCACCAAT CTTACCAACA GGTGGGCTT GCAAGCCATG ACTAGCAAAG	2520
AAGGCTGCTG TCCCTTCTGT CGCAAGGATT CCATAACCAA TGTTTTGGAA ACGACGAGCC	2580
AAGTTCAAGG CTTCTTCTTT GGCATCATCA GCGATGGTAA AGACGACATT ACCAAAAGTT	2640
GGCAAGTGTA GATAAGAAGC TTCAAAGGCT TTATAGAGAG CTTTTTCCAA AGTAGCATCA	2700
GAACCCATAA CTTACCTGT TGACTTCATT TCAGGACCGA GCAAGCTGTC TACCTTAGCT	2760
AGTTTGGTAA AGGAGAAGAC AGGTGCCTTG ATATGAACAC GGGTGCTTTC AGGGTAAAGT	2820
CCATTTTGGT AGCCAAGTTC TGATAAACTT TGACCAAGAA TGAGTTTGGT CGCTACTTGA	2880
GCCATAGGAA TATTGGTTAC CTTAGATAGG AATGGAACAG TACGGCTGGC ACGTGGATTG	2940
ACCTCAATAA CGTAGACTTT TTCATCCTTG ATAACAACT GGATGTTTAT CATTCCAAGG	3000
CAGTGAAGAC CGATTGCTAA GCGTTTGGTG TAGTCTGCGA TGGTCTCCTG AACCTTTTGC	3060
GACAAGGTTT GTGGTGGGTA AACAGCCATT GAGTCACCTG AGTGGACACC AGCACGTTCC	3120
ATATGCTCCA TGATACCAGG AATGAGTACA TTTTACCAT CTGAAATGGC ATCAACTTCG	3180
CACTCTTGCC CAACGATATA AGAGTCGACA AGAACTGGGT GGTCTGGACT AGCCTTAACA	3240
GCAGTTCGCA TGTAAGAAGC AAGGTCTTCT TCGTTTCAA CGATTTCAT GGCACGTCCA	3300
CCAAGTACAT AAGATGGGCG GACAAGAACT GGAAGCCAA TCTTGCGAGC TGCAAGAGCT	3360
GCTTCTTCTT CATTGGTAGC CGTTTGTCTT GGTGGCTGTG GAATATCCAA TTCTTTGAGA	3420
GCTTGCTCGA AGAGGTCACG GTCTTCGGCA CGATCTAGGT CAGCAACCTG TGTACCAAGG	3480
ATGGTCACAC CTGCTTTTGC CAATGGCTCC GCAAGGTTGA TGGCTGTTTG ACCACCGAAC	3540
TGAACGATAA CTCCCTTTGG TTGTTCCAAG TCAATGACGT TCATAACATC TTCGAATGTC	3600
AATGGCTCAA AGTAAAGCTT ATCTGATACA GAGAAGTCTG TTGAAACGGT CTCTGGGTTT	3660
GAGTTCATGA TGATAGCTTC ATAACCAGCT GCCTGGATAG CCTTAACAGA GTGAACGGTT	3720
CGTAGTCAA ACTCAACCCC TTGACCGATA CGGATTGGAC CTGAACCTAG GACAAGTACA	3780
GATTCTTTAT CAGATCTGAT AGATTCATTT TCCCAACCAT AGGTGAATA GAAATATGGC	3840

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GTTTCGGAGT	CGAACTCTGC	CGCACAAAGTG	TCTACCATCT	TATAAACTGG	AACAATCTTG	3900
TTTTCCAAGC	GAAGTTGGCG	AACTTTATCA	TCAGTCGTTT	CCCAGAGTTC	AGCAATCTTA	3960
CGGTCTGAAA	AACCATTAAAG	TTTGGCTGTT	TTCAAACTT	CTAAATCTTG	TGGATGAGCA	4020
CCCAATTCTT	GCTCAATTTT	AAAGATATGC	AAGAGTTTAT	CAAGATAGAA	GATATCAATT	4080
TTTGTAAGCT	CTGCAATTTT	TTCAAGGTGT	TAGCCACGAC	GAATGGCTTC	TGATACGTAG	4140
AAGAGACGGT	CATCTTGGGC	TTTGACAACC	TTTTCAATCA	AGGCATCATC	AGAACTGCT	4200
GCAAGTTCAG	GTATTTTATT	GTGGTGCACC	CCAATTTCAA	GGGAGCGGCA	GGCCTTGAGA	4260
AGAGATTCTT	CGATGTTACG	ACCGATTGCC	ATGACTTCTC	CAGTCGCCTT	CATTTGTGTA	4320
CCGAGACGGC	GTTCAACCCTT	TTCAAACTTG	TCAAATGGGA	AACGTGGAAT	CTTAGCAACT	4380
ACGTAGTCAA	GGGCTGGTTC	AAACATGGCA	TAGGTTGAAC	CTGTAAGTGG	GTTTATAACC	4440
TCATCCAAGG	TCAAACCTAC	TGCAATCTTG	GCAGCCAACT	TAGCAATCGG	ATATCCTGTC	4500
GCTTTAGAAG	CAAGGGCTGA	CGAACGTGAT	ACACGAGGGT	TTACTTCGAT	AACATAATAC	4560
TTGAAGCTGT	TAGGATCAAG	AGCTAGCTGA	ACATTACATC	CACCTTCAAT	CTTGAGGGCA	4620
CGAATAATGC	TCAAGCTCGC	ATCACGAAGC	ATTTGGTTTT	CATAGTCTGA	CATGGTTTGC	4680
GCAGGGGCAA	ATACAATGGA	ATCCCCTGTG	TGAATCCCAA	CTGGGTCAA	GTTTTCCATG	4740
TTACAAACAA	CCAAGGCATT	GTCAGCTGAG	TCACGCATCA	CTTCGTATTC	AATTTCCCTG	4800
AAACCGGCAA	TCGAACGCTC	AATCAAACAT	TGGGTAACAG	GTGACAATTT	CAAACCATTT	4860
TCAGTGATTT	CACGCAATTC	TTTCTCGTTG	GCACACATAC	CACCACCAGT	ACCACCAAGG	4920
GTAAAGGCTG	GACGAACGAT	GAATGGGTAG	CCAATTGTCT	CTGCAAAGGC	AATGCTTCTT	4980
TCTACTGTGT	TAACAATTTT	AGATTCTGGA	ATGGGTGTGT	CAAGCTCTTC	CATCAATTGT	5040
TTAAAGAGGT	CACGGTCTCT	CGCTTGGTCA	ATGGCAGATA	ATTTGGTACC	CAGAAGTTCA	5100
ACGCCAAGCT	CGTCTAGGAT	ACCATTTTTA	GATAATTCCA	TGGCCATGTT	GAGACCTGTC	5160
TGACCACCGA	GTGTTGGTAG	CAAGGCATCT	GGACCTTCCT	TACGAAGAAT	ACGTGTCACA	5220
AACTCAAGTG	TAATCGGTTC	AATGTAAACC	TTGTCAGCAA	TTTCCTTGTC	CGTCATGATG	5280
GTTGCAGGAT	TTGAGTTAAC	CAAAACAACC	TCATAACCTT	CCTCTTTCAA	CGACAAGCAA	5340
GCCTGAGTCC	CAGCGTAGTC	AACTCAGCA	GCCTGACCAA	TAATAATCGG	ACCAGAACCA	5400
ATCACCATAA	TTTTTTGAAT	ATCAGTACGT	TTAGGCATAT	ATAAGATATT	AAGGGTGTCA	5460
AGCGGACAAA	GCTAAAATAG	GAGTTATGAC	GAAGAACTGT	CAGTTCTAGG	AATAACTATC	5520
TTTTTAGCAC	CGTCCGTAGC	CCGTATTTCAG	TTCAAGCAAAT	ACGGAGCACC	CTTCTCCTTT	5580
CTATTCGTCT	CCTCTCAGGG	CGACATTAAA	TAAGATACAA	AGGACGAATA	GAAAGCGATT	5640

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GAATTTTAGG AAATCAAGGA AGGATTGACA ATCCAAGTTG GTTTCTCTAC ATTCTGAGCT	5700
TTCCGTCCGT GTTCAGTTAC ATAAATTCTC CGACGAGCTT TTAATCGTTC TTAGTTTGAT	5760
TGTTTAAAAA CTTCCATCAT CTCGATAAAC TCGTCAAATA GGTAGCTAGC GTCGTGTGGC	5820
CCAGGAGCTG CATCTGGGTG GTATTGAACA GAGAAAGCAG GTTGGTATCT GTGGCGCACA	5880
CCTTCCACTG ACTTGTCATT GATTTCTTCG TGGTAATAA TCAAGTGCTC TGGCAAATCC	5940
TCGCGGCTGA CTGCATAACC ATGGTTCTGG CTGGTGAAGT CTAATCGTCC TGTTCGATT	6000
TCACGTACCG CATGGTTGAA TCCACGGTGG CCAAACTTCA TCTTATAGGT CTTAGCCCCG	6060
TTTGCCATTG CAAAGAGTTG GTGTCCCATA CAAATACCAA AGATTGGAAT TTTCTCTGT	6120
ACACCGCGAA TCATGTCGAG TGCTTGTTGA ACGTCTTCTG GGTACCTGG ACCATTGAC	6180
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ACTGTCACGT TACAGTTGCG TTTAGAAAGT TCACGTAGGA TTGAGTGCTT GAGACCAAAG	6300
TCCACTAGCA CCACGCTCAA ACCAACTCCT GGAGCTGGAT AAGACGTTTT AGTAGAAACC	6360
TGTTTGATAT TGTCTGTCGG TAAACTGTT GCTTGAGCT GGTCCGTCAC ATGGTCCATA	6420
CTGTCCCCAA CATGGGTCAA GGTGCACGC ATAGTACCAT GCTTACGGAT AATCTTGGTA	6480
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AAGGTCATTT GGTGCGCCA GTTGCTAGCT CTACGCGCTT CTTCAAAAAC AACGACTCCC	6600
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CCGGTCATCC CTGTATTAAA GACGATTTCT CCTGTTACAT CAATATCTGC TCCGAAGGCC	6780
TTGCCTTCAA AACTGTGCC ATCTTCTAAT ACTAGAATTC TTTTGTGAT ATTTTCACCT	6840
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TAGTACGGAT TCTAAGATTG CCATTGGAAC AAAGACACCA TTGGTCATTT GTTGGACAAT	6960
CCGTGATTTT GGTGCTTCAA CCAAGTGGTC TGCTATTTCT ACATCAGGAT TGATTGGAGC	7020
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TTGGGCATGG TAGTCTTCTT TTGAAAATAC AGCTCCACTA TCATGGCGTT CGTGTTGCAC	7140
ACGGAGAAAC ATCATGACAT CAACCTGATC AATGATTTCA TCAATGGTTA CAACTGTCC	7200
ATAGTCTGCA AACTCTTGAC TTCTCCATTC CTCAGGTCCA GCGAAAAGA GTTCAGCTCC	7260
CAAGCGTTTC AAAATCTGCA TATTGGATTT GGCAACGCGT GAGTGGTCCA AGTCACCTGC	7320
AATAGCAACT TTAAGACCCT CAAAGTGGCC AAATTCCTCA TAAATGGTCA TCAAATCAAG	7380

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CAAGCTCTGG	CTAGGGTGTT	GGCCCGAACC	ATCTCCACCA	TTGATGATGG	AAGTCGTAAT	7440
CGTTGGACTA	GCAATCAATT	CTCTATAGTA	GTCGACCTCT	GGATGGCGAA	TCACACAGAC	7500
ATCCACTCCT	AAAGCAGACA	GAGTCAAAAT	GGTGTCATAA	AGTGTCTCAC	CCTTATTAAC	7560
CGAGCTAGTC	TTACATCAA	AGTCAAGTCG	TTCCAATCCA	AGTTTAATCT	CTGCGACTTC	7620
AAAGGACTTA	TGTGTCCGTG	TAGAATCCTC	AAAGAAGAGA	TTGGAAACAA	TCGGATGGTC	7680
TTCATAGGGA	AGCTGGGCTC	CATTTTTTAA	CTCAATTCCT	CGCTTGATCA	ATTTTCATTAC	7740
TTGATCGACA	GTGAGGTCTT	CCATGGACAC	CACATGGTTC	AATGCTTGTT	GATTTTCTGA	7800
CATGGCTACT	CCTTTAACTT	TCTAAGCTTC	TTCAAGTAATC	AGAACTCTGT	CTTGGTCATC	7860
AAGTTCTGTC	ATCTCTACGA	TGATTTCTTC	AGAACGACTG	GTTGGGATAT	TTTTTCCAAC	7920
GTAATCTGGA	CGGATTGGCA	ATTCTCTATG	TCCACGATCG	ACTAGAACTG	CTAAACTCAC	7980
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AGTATCTTCT	CCACTTTTAA	CATCATCACG	GAAAGGTTTA	GTATCCAATT	CCACAACAGG	8160
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ATAAGTAATA	CGCGTAATCG	CTCGTTTGAC	GGTCAATTCG	TCTACAACTT	CTTTTGTTTT	8340
CATGACAAAC	CTCCAAAAG	AAAAGTCTCC	TAAACAAGG	AGACTTGAAA	TTTATAGCCA	8400
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GCCTCACGGG	ACAGGTTTAA	AGGAATATTT	AGTTATCATT	TACTATAGCA	CAAAGCATGC	8520
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TGGGTACTGG	TCACACTCTG	GATTTTTTGG	ATGGCAAATG	GCTCTTCCAA	AATAAATCAT	8640
GGCCTGATGG	GCAGCTAACC	ACTGCTCAGG	CGGCAAGATA	TCCATGACCC	GCTTTTCCAC	8700
CTCAAGTGGC	GTCGCTGATT	TTTTGACAAT	ATCGTGGTGT	TTGCAAATAC	GCTCCACAAG	8760
AGTATCCACT	GCAAAGGCTG	GAATTCCAAA	TCCTACACTC	ATGACAACAT	TGGCTGTCTT	8820
GCGACCAACA	CCTGCCAAAC	TCTCCAATTC	TTACCGTGTC	TGAGGGACTT	GACCATCAAA	8880
ATCGTCTAGT	AACTGTTGGG	CACATTTTTT	AAGGAATTTA	GCTTTATTCC	GATACAATCC	8940
CAAGCGAGAA	ATATGTGAAG	CAATCTCACT	CTCTGTCGCT	ACAGACATAG	CTTGGGGTGT	9000
TGGAAAGGCA	ACAAAGAGAC	CTGGTGTGGC	CTTATTTACC	GCTGCATCTG	TCGTCTGGGC	9060
TGATAACATG	ACCGCAACCA	GGAGTTCAAA	ATGATTGGTA	AAATCAAGAC	TAGGCTTGGC	9120
ATCTGGGAAG	AGGGCAATGA	TTTCTTCTAG	CACCTTTCGT	GCTCGTTTTT	TTGACAAGAC	9180

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CATTATTTCAT CTCCGTCAAA TAGTCCTTGT AAGCCAGCAA AAGGACTGTT TTCTTCTTTC	9240
TTTACTGCTT TTTGAGCTTG GTATTCTTCC TCTGTCATGA TTTGCCAGTC ATTCCTGAG	9300
ATAAATCCTT GACCAGCTTC TTCTTCAGCC GTCAAGACCT TGATAGGAAT GTTTAGCAGG	9360
ATATTGTCTG ATACACTCTC AGCAAGGTCA AGCTCCCCAT TTTGATGGG CAAGACCAAG	9420
TCATCATCTA AAACCTTCTG ATCTAGCTGG TTAGTTGCGC CTTCCATGAA AACTTCCGTG	9480
ACTGGATAAG ATTCAACTAA CTCAACTGGC TCCATACTGC GACTCGACGC AAGAACAATG	9540
GTATAAGATA GTTGATAATC TAAGAAATAC ATACGGTCTT CATATTGTAC TTTCCCAACT	9600
GCAAGGATAT CTTTACATC TAAAATTTCT TGATTACGTG CACGCAGGTC ATCAACTAAA	9660
TCTAACGTTT GTTCAAAGTT CAAACCTTCA GACTGCTTAC GAATTTCTTG AATATTTAAT	9720
TTCATACTTC CTCCATAAAG ATTTACTCTC TTGATTATAC CATGAAAAGG CTACAAATCA	9780
GCACACCAAA CTTTGTAATT AAAATTCAAA ATTTTAACAT ATTTACTATG ATAGTTTAT	9840
TTTTTAGTGC TATACTATAG GGAAAGAGTA CATCAGATCA AGGAGGATGC TCACATGGAA	9900
GACAAGAAAC TCATTCAACT CCTATCCAAG TTAAATAAAA GCTACCAAAA CTGTAAACAG	9960
GGTACGGCAG ATGATATTCG ACTACAAGAG CTGCTAAACA CTACTATGCA AGAGCTCAAA	10020
AAAACGGAAC AGTTGAACAA CAGTATCTTA ATTGATCTTG AGAAATTTTA CCAACCTACC	10080
AGTCTTCTGA TTGGACTGGG TAGCCTAAAA CTAAACGATC AAGCACGCAC TGCTTGGCGA	10140
AACTATGATA AATTCCATTA CGATCATGTC AAACACGTAC TAAGTCTCTA TGGACCTGTT	10200
TTTGAATTTT AGAGCATAGA ATTTCCAGTT TTCTGTTGAC AAAATTTTCT TAAAGGTATA	10260
ATATAAAGAT ACTAATACTC GGAGGTAAGG GAGACATGAA CAACTAAGTC TATCAAATAA	10320
AGAACCTTTA TTTAGTAGAT CTTGTTTTTG TCTCTTTTGG TGTGCTCTTT TATGCTCTTT	10380
TTCTGGCATG TTAATAGAGT TTTTGTGACA TAGACTTTGG GCTCTACTAG GTAAAGTAGA	10440
GCTTTTTGTT ATGCACTATG AACATTCTAG AAAGGGAAAT CATATGATAA AAATCAATCA	10500
TCTAACCATC ACACAAAACA AAGATTACG AGATCTTGTA TCTGACCTAA CCATGACCAT	10560
CCAAGACGGG GAAAAGGTTG CTATTATTGG TGAAGAAGGA AATGGCAAAT CAACCTTACT	10620
TAAAATTTTA ATGGGGGAAG CTTTGTCTGA TTTCACTATC AAGGGAAACA TCCAATCTGA	10680
CTATCAGTCA CTGGCCTACA TTCCTCAAAA AGTCCCTGAG GACCTAAAAA AGAAAACCTT	10740
ACACGACTAC TTCTTTTTAG ATTCTATTGA TTTAGACTAC AGTATCCTCT ATCGTTTGGC	10800
GGAGGAATTG CATTTTGATA GCAATCGTTT CGCAAGTGAC CAAGAGATTG GCAATCTATC	10860
AGGGGGCGAA GCTTTGAAAA TTCAGCTTAT CCATGAGTTA GCCAAACCCT TTGAGATTCT	10920

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ATTTTATAGAT	GAACCTTCAA	ATGACCTAGA	CCTTGAGACA	GTTGATTGGC	TAAAAGGCCA	10980
GATTCAAAAG	ACCAGGCAA	CCGTTATTTT	CATTTCCCAT	GATGAAGACT	TTCTTTCTGA	11040
AACGGCAGAC	ACTATTGTTT	ACTTGCGACT	GGTCAAACAC	CGTAAAGAAG	CGGAAACGCT	11100
AGTAGAGCAT	TTAGACTATG	ATAGCTATAG	TGAGCAGAGA	AAGGCTAATT	TTGCCAAACA	11160
AAGTCAGCAA	GCTGCTAACA	ACCAAAGAGC	CTACGATAAA	ACCATGGAAA	AACATCGGAG	11220
AGTTAAGCAA	AATGTAGAAA	CTGCGCTTCG	AGCTACCAAA	GATAGTACTG	CCGGTCCGCT	11280
ATTGGCTAAA	AAGATGAAAA	CTGTCCTCTC	ACAAGAAAAA	CGCTACGAAA	AGGCAGCTCA	11340
GTCCATGACT	CAAAAGCCAC	TTGAAGAGGA	ACAAATCCAA	CTTTTCTTTT	CAGACATCCA	11400
ACCATTACCA	GCTTCTAAAG	TCTTAGTCCA	ACTGGAAAAA	GAAAATTTGT	CCATTGACGA	11460
CCGAGTTTTG	GTTCAAAAAC	TACAACTAAC	TGTCCGTGGC	CAAGAAAAAA	TCCGTATTAT	11520
CGGGCCAAAT	GGTGTGGGA	AATCAACTCT	GTTAGCCAAG	TTACAGAGAC	TTCTGAATGA	11580
TAAAAGAGAG	ATTTCACTTG	GTTTTATGCC	ACAAGATTAC	CACAAAAAAC	TGCAATTGGA	11640
TTTATCCCCA	ATAGCCTATC	TCAGTAAAC	TGGGGAAAAA	GAGGAACTAC	AGAAAATCCA	11700
ATCTCACCTA	GCTAGTCTCA	ATTCAGTTA	TCCAGAAATG	CAGCATCAAA	TTCTGCTCCTT	11760
ATCTGGCGGA	CAACAGGGAA	AACTCCTGCT	TTTGGATTTA	GTCCTGCGCA	AACCAAACTT	11820
TCTCCTGCTG	GATGAACCCA	CACGAACTT	TTCTCCCACT	TCTCAACCCC	AAATCAGAAA	11880
ACTCTTTGCT	ACCTATCCAG	GCGGTCTCAT	CACTGTTTCG	CATGACCGTC	GTTTCTTAAA	11940
AGAAGTCTGC	TCGATCATCT	ATCGCATGAC	AGAACACGGT	TTGAAGCTAG	TTAATTTAGA	12000
AGATTTATAA	ATTTGCAACA	TAGCAAAAAT	CCAGAGACGA	CCTCTGGATT	CTTTTACATC	12060
TGTTTTAAAC	GTTCAATCCG	TTCTGAGATA	GGTGGGTGGG	TATAAAAGAG	TTTTTGGAAC	12120
CCCCCACCTT	TCTTAGGATC	ATTGATATAA	AGGGCACTGC	TAGCATCATC	GACGTGGCGA	12180
CTCATAGGTT	TGCTATTGTC	CAACTTATCT	AGGGCATTAA	TCATTCCCTG	GGGATTGCGA	12240
GTCAGCTCGA	CACTAGATGC	ATCTGCCAGA	AATTCCCTCT	GACGAGAAAT	AGCGAGCTGA	12300
ACCAAGGTTG	CAGCGAGAGG	TGCCAGTACA	ATAGCTAGTA	GGGAAACCAC	TAGCATAATG	12360
ATTTCAAGAC	CATTTCCATC	TCGGTCATCA	TCCTTCGTC	TGCGACCTGC	TCCACCCAC	12420
CACATCATAC	GACCTGCCAT	ACTAGAAAGC	ATGGTGATAG	CACTAGCAAG	GGCAACTGCA	12480
ATAGTCGAAA	TACGGATATC	ATAATTACGA	ATATGACTGA	CTTCATGTCC	CATAACAGCT	12540
TCTAGTTCTT	CACGATTCAT	GATAGCTAGT	AGACCTGAAG	TCGCAGCAAC	AGCCGCATTT	12600
TGAGGATTAG	AACCTGTCGC	AAAGGCATTT	AAGGCTGGAT	CATCAATGAT	GAAAACACGG	12660
GGCATAGGAA	TCTGAGCGAC	CAGAGCCATA	TCTTCCACTA	CATGGTAGAG	GTCTGGTGCC	12720

GTTTGCTCAT CCACCTCACG CGCTCCATTC ATGGACATGA CAATCTCTGT CGATTGAAAA	12780
ATCATAGACA AAGCGTAGAT AAAGCCGATA ATCAGTGCAA TAACCAAACC ACCAAGTCCA	12840
GATCTTATAA AGAGATAACC AACCGCATAA CCAACAAGAG CTAAGAGTAG GAAAAATACC	12900
AGCAACAAAA TCCAGGTTTT TCGTTTATTG CTTGCAATTT GATCAAACAA CATCTTAGTC	12960
ACCTAAACCG CTAAAATCAA CTTTAGGAAC CGACTTTTCC TCTTCAGGTG TTTGAAGGAA	13020
ATCTGCCGCT TTAAATCCAA ACATTCCAGC GATAATATTG CTCGGGAAAG TTTCTAATTT	13080
TACATTGTAG TTGCTGACAA CACTGTTATA GAGTTGACGA GAGTAAGAAA TTTTATTTTC	13140
TGTGTTTGTC AACTCCTCTT GCAATTTAAC AAAGTTAGCA CTAGCTTTCA AATCTGGATA	13200
GCTTTCTGCA ACTGCAAAAA TACCTGAAAC CTGACGAGTG AGGGCATCAC TGGCTTTCAT	13260
AGCTTCTGCT GGTGAAGTCG CTGCCGCCAC TTGGTTACGT AGTTCTGCCA CCTTTTCAAG	13320
GGTAGAACCT TCATATTTGG CATAACCTTT TACAGTCTCA ATCAAGTTTG GCAAGAGGTC	13380
ATTGCGACGT TTCAACTGAA CATCAATCTG ACTCCAAGCC TCCTTGGTTT GCATACGATT	13440
TTTAACCAAA CCGTTATAGC TAACAATCAC AAAAATAACA ATAAGAGCGA TAACTCCAAG	13500
AATAATCCAA GTCATAATAT AAGTCCTTTC TGCTTTTAGA TTAGTACCAG TATATCAAAT	13560
TTTCTATGAT TGTGGTAAAA TAAGATGATA CTAAAGAAGG AAATAACTAT GAAACCAAAA	13620
ACATTTTACA ACTTGCTTGC CGAGCAGAAT CTTCCACTTT CGGACCAGCA AAAAGAACAA	13680
TTTGAACGTT ATTTTGAGCT CTTGGTCGAG TGGAAATGAGA AGATTAAATTT GACGGCGATT	13740
ACGGACAAGG AAGAAGTTTA TCTCAAACAT TTTTACGATT CGATTGCACC CATTCTTCAA	13800
GGTTTGATTG CCAATGAAAC TATCAAACCT CTTGATATCG GGGCTGGGGC AGGATTTCTT	13860
AGTCTACCAA TGAAAATTCT CTATCCGGAG TTAGATGTGA CCATTATTGA TTCACTCAAT	13920
AAGCGCATCA ACTTCCTACA ACTCTTGGCT CAAGAAGTGG ATTTGAACGG AGTTCATTTT	13980
TACCACGGAC GTGCCGAAGA TTTTGCCCAA GACAAGAACT TCCGTGCTCA ATATGATTTT	14040
GTAACAGCTC GTGCGGTTGC CCGTATGCAG GTCCTATCTG AATTGACTAT TCCCTACCTT	14100
AAGGTTGGTG GCAAACATTT AGCACTCAAG GCTAGCAATG CGCCTGAGGA ATTATTAGAA	14160
GCTAAGAATG CCCTCAATCT CCTTTTTAGT AAGGTCGAAG ACAATCTCAG TACGCCCTAC	14220
CGAATAGAGA TCCGCGCTAT ATCACAGTGG TAGAAAAGAA AAAAGAAACA CCAAATAAAT	14280
ATCCACGTAA GGCTGGTATG CCAAATAAAC GCCCACTTTA AATTTTTTAG TAAACAAATG	14340
TTTACAAAAT CAGCCTCGCT CTTTTATTTC TAGGCTCGGG AAAAAATGAT TTACAAAATC	14400
AGCCTCGCTC TTTTATTTCT AGGCTCGGGA AAAAATGATT TACAAAATCA TTTTTTCTG	14460

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CTATACTATC CTAAGCAAAG GTTTTAAATG TCATCCCGTG AGGTGACGAA GACGCAGAAA	14520
TATTTAAAAC TCTTTAAAAT CTAAATTTTA AAGAAGTCTT ACTCTGAGGG CCTATTGCTG	14580
TAAAATAATG GGCTCTTTT TGATGCCCAA AAGTGAGGTT TATATGAAAC AAGAATCAAC	14640
TGTTGATTTG TTAC	14654

(2) INFORMATION FOR SEQ ID NO: 107:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 6405 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: double
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 107:

AGAAAAATCT GCTTTACAGA AAATAAAAT AATAGGAGAA AATCTATGTC AGATTGAAA	60
AAATACGAAG GTGTCATTCC AGCCTTCTAC GCATGTTATG ATGATCAAGG AGAAGTAAGC	120
CCAGAACGTA CGCGTGCCTT GGTTCATAC TTCATTGATA AAGGTGTTCA AGGTCTTTAT	180
GTCAATGGTT CTTCTGGTGA ATGTATCTAC CAAAGCGTTG AAGATCGCAA GTTGATTTTG	240
GAAGAAGTCA TGGCGGTAGC AAAGGTAAAT TGACCATTAT TGCCCATGTT GCTTGCAATA	300
ATACTAAAGA TAGTATGGA CTTGCTCGCC ATGCTGAAAG CTTGGGAGTA GATGCTATTG	360
CAACGATTCC ACCAATTTAT TTCCGCTTGC CAGAATACTC AGTTGCCAAA TACTGGAACG	420
ATATCAGTTC TGCAGCTCCA AACACAGACT ACGTGATTTA CAACATTCCT CAATTGGCAG	480
GGGTTGCTTT GACTCCAAGC CTTTACACAG AAATGTTGAA AAATCCTCGT GTTATCGGTG	540
TGAAGAACTC TTCTATGCCA GTTCAAGATA TCCAAACCTT TGTACGCTT GGTGGAGAAG	600
ACCATATCGT CTTTAATGGT CCTGATGAGC AGTTCCTAGG AGGACGCCTC ATGGGGGCTA	660
GGGCTGGTAT CGGTGGTACT TATGGTGCTA TGCCAGAACT CTTCTTGAAA CTCAATCAGT	720
TGATTGCGGA TAAGGACCTA GAAACAGCGC GTGAATTGCA GTATGCTATC AACGCAATCA	780
TTGGTAAACT CACTTCTGCT CATGGAAATA TGTACGGTGT CATCAAAGAA GTCTTGAAAA	840
TCAATGAAGC CTTGAATATT GGATCTGTTT GTTACCATT GACACCAGTG ACTGAAGAAG	900
ATCGTCCAGT TGTAGAAGCG GCTGCTGCCT TGATTCGTGA AACCAAGGAG CGCTTCCTCT	960
AATCTAAAAG GAGGTATTTA TGACATATTA CGTTGCAATT GATATCGGTG GAACCAACAT	1020
CAAGTATGGT TTGGTTGATC AAGAGGGGCA ACTTCTTGAA TCGCATGAAA TGCCAACTGA	1080
GGCGCATAAG GGTGGACCTC ATATCTTACA AAAGACCAAA GATATCGTAG CTAGTTATTT	1140
AGAAAAAGGC CCAGTAGCAG GTGTTGCCAT ATCTTCTGCT GGGATGGTGG ATCCGGATAA	1200

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GGGTGAGATT TTCTATGCTG GGCCGCAAT CCCTAACTAC GCAGGCACCC AGTTCAAAAA	1260
GGAAATCGAA GAAAGCTTTA CTATTCCTTG TGAGATTGAA AATGATGTCA ACTGTGCAGG	1320
TCTTGCTGAG GCAGTATCTG GTTCAGGCAA GGGAGCAAGT GTGACACTTT GCTTGACCAT	1380
TGGAACCGGT ATCGGTGGTT GCTTGATTAT GGATAGGAAA GTCTTCCATG GTTTTAGCAA	1440
TTCAGCCTGT GAAGTCGGGT ATATGCATAT GCAGGATGGA GCTTTTCAAG ACTTGGCTTC	1500
TACAACAGCT TTAGTGAAAT ATGTAGCTGA AGCCCATGGA GAAGATGTTG ATCAGTGGAA	1560
TGGCCGTAGA ATTTTCAAAG AAGCCACTGA AGGAAACAAA ATCTGCATGG AAGGTATTGA	1620
CCGTATGGTT GACTATCTAG GAAAAGGTCT GGCAAATATT TGCTACGTTG CCAATCCAGA	1680
AGTGTTTATT CTTGGTGGTG GTATCATGGG GCAAGAGGCT ATCCTCAAAC CTAAGATCCG	1740
TACAGCCTTG AAAGAGGCTT TGGTACCAAG TTTAGCAGAA AAAACACGAT TAGAATTTGC	1800
CCATCACCAA AATACAGCAG GGATGTTGGG TGCATATTAT CATTTTAAGA CAAAACAATC	1860
CTAGTTTGGC TCAGCCAAAC TAGGATTTTC TTACACGTTT TTGTCTACGA TAGCCGTTGA	1920
GTTTTTTATT TTCCAGTAG CTATTAAAGA TTTTTCCTT GCTTTCGCGA TTGATTTCCA	1980
AAAAGTAGGC ATAAATCAAA TCGATAAAGA AGAGCATAGG AAGTTGAGCG GATATTCGTT	2040
GGATATAGGA GGGTTGGCTG TGGGTGGCTA CAAGAACAGT CTCTGTATAG GTCTGGCTAT	2100
CTTTATTGGG AACACTTGTA AAGAGTACAG TCTTTGCCCC CATCTCCTTA GCATCTAATA	2160
GACTATCTAA AATAGAAGGA GTTGAGCCTG AAAGTGAGAA GCCCAGTACT AGACAATTTT	2220
CATCCATGAT GCTGGTTGTC CAGGCAAAGC CGTCTTGGTC TGTCAAAGCT TCGCAGACCA	2280
CACCTAGTCG CATAAAACGT AATTTTCATTT CACGGCCGAC GAGGCCAGAA CTCCCTGTTT	2340
CAAAGAAGTA GATACGCTCA GCATCTTCGA TTAGCTGGGC AATTCGTTCT AGTTGGATTT	2400
CGTCAATCAA GTCTTGTTT TGTTCCTCA TATTGCTATA ACTTCTGAGG ACTCGTTTGG	2460
TCAGTGGACT GTGCTTGGAG ACTTGGTTGG CTTGATTTTC TGCCTGATGT TGGTATTGGA	2520
AAATAAATTC TCGGTAGCCA GTAAAGCCAC ACTTTTACG AAAGCGGGTC AAAGCAGCTT	2580
GAGAAATATG TAATTTTGG GTGACTTGTT GAGAAGATAA ATCATCTGTA ATCGTTTCAG	2640
CTTGCAAAAA ATAGCGAGCG ATTTCTTGTT CTAGGTCTGT CATTTCTTCA AAATGTGAAT	2700
CAATGATAGT TGCGATATCT GGTTTGTCCA TAGGGAAAGC TCCTTTACAT GAGTCATACT	2760
GGAAGACTAG ATCAGAGAAT AGTCACACTT CATTATAACA CATAATATAA GGATAGATAA	2820
ATAAAAACGC ATCTCTGTTT TAAAAACGAA AAAATCGAAA AAGCTTCTCT CTTTTCATA	2880
ATTTTCTACT CAAATTGTGG TACAATTAAG AGTAAGATTT TAAGTTAGAA ATGAGACTGA	2940

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TTTGATGAG AAAATTAAAC AGCCATTGCA TTCCGATTG GCTTAATTTA TTGTTTTCAA	3000
TCGTCATTTT ACTCTTTATG ACCATTATTG GTCGTTTGT GTATATGCAG GTTTTGAACA	3060
AGGATTTTTA CGAAAAAAG CTAGCTTCAG CTAGTCAGAC CAAGATTACA AGCAGTTCAG	3120
CCCGTGGGGA AATTATGAT GCTAGTGGAA AACCTTTGGT AGAAAATACG TTAAAGCAGG	3180
TTGTTTCCTT TACGCGTAGC AATAAAATGA CGGCTACAGA CTTAAAAGAA ACAGCTAAAA	3240
AGTTACTGAC TTATGTGAGC ATCAGTTCTC CAAATTTGAC AGAACGCCAG CTGGCGGATT	3300
ACTATTTGGC TGATCCTGAA ATCTATAAAA AAATAGTGGG AGCTCTCCCA AGTGAGAAAC	3360
GCTTGGATTC AGATGGCAAT CGTCTATCCG AATCAGAACT GTATAACAAT GCGGTCGATA	3420
GTGTACAAAC GAGTCAACTA AACTATACAG AGGATGAAAA GAAAGAAATC TATCTTTTTA	3480
GTCAGTTAAA TGCTGTTGGA AACTTTGCGA CAGGAACCAT TGCGACAGAT CCTCTAAATG	3540
ATTCTCAGGT GGCTGTTATT GCCTCTATTT CAAAGGAGAT GCCTGGCATT AGTATTTCTA	3600
CTTCTTGGGA TAGAAAGGTT TTGGAAACTT CCCTTTCTTC TATAGTTGGG AGTGTATCCA	3660
GTGAAAAAGC TGGTCTCCCA GCGGAAGAAG CAGAAGCCTA TCTTAAAAAA GGCTATTCTC	3720
TAAATGACCG TGTAGGAACC TCCTATTTGG AAAAGCAATA TGAAGAGACC TTACAAGGAA	3780
AACGCTCGGT AAAAGAAATC CATCTGGATA AATATGGCAA TATGGAAAGC GTGGATACAA	3840
TTGAGGAAGG TAGTAAGGGA AACAATATCA AACTGACCAT TGATTTGGCT TTCCAAGATA	3900
GCGTGGATGC TTTACTGAAA AGTTATTTCA ATTCTGAGCT AGAAAATGGT GGAGCCAAGT	3960
ATTCTGAAGG TGTCTATGCA GTCGCCCTTA ACCCAAAAAAC AGGTGCGGTT TTGTCTATGT	4020
CAGGGATTAA ACATGACTTG AAAACGGGAG AGTTGACGCC TGATTCCTTG GGAACGGTAA	4080
CCAATGTCTT TGTTCAGGT TCGGTTGTCA AGCGGCGGAC CATCAGCTCA GGTTGGGAAA	4140
ATGGAGTCTT GTCAGGAAAC CAGACCTTGA CAGACCAGTC CATTGTCTTC CAAGGTTGAG	4200
CTCCCATCAA TTCTTGGTAT ACTCAGGCTT ACGGTTTATT CCCTATCACA GCGGTCCAAG	4260
CTCTGGAGTA TTCATCAAAT ACCTATATGG TCCAAACAGC CTTAGGTCTT ATGGGGCAAA	4320
CCTATCAACC CAATATGTTT GTCGGCACCA GCAATCTAGA GTCTGCTATG GAGAACTGC	4380
GTTCAACCTT TGGCGAATAT GGCTTGGGTA CTGCGACAGG AATTGACCTA CCAGATGAAT	4440
CTACTGGATT TGTTCCTAAA GAGTATAGCT TTGCTAATTA CATTACTAAT GCCTTTGGGC	4500
AGTTTGATAA CTATACGCCG ATGCAGTTGG CTCAGTATGT AGCAACTATT GCAAATAATG	4560
GTGTTGTTGT GGCTCCTCGT ATTGTTGAAG GCATTTATGG TAATAATGAT AAGGGAGGAC	4620
TGGGTGACTT GATTCAGCAA CTGCAACCGA CAGAGATGAA TAAGGTCAAT ATATCCGACT	4680
CCGATATGAG CATCTTGAC CAAGGTTTTT ATCAGGTTGC CCATGGTACT AGTGGATTGA	4740

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CAACTGGACG	TGCCTTTTCA	AATGGTGCCT	TGGTATCCAT	TAGCGGAAAA	ACAGGTACAG	4800
CCGAAAGCTA	TGTGGCAGAT	GGTCAGCAAG	CAACCAATAC	CAATGCGGTG	GCCTATGCCC	4860
CATCTGATAA	TCCCCAAATC	GCTGTGCGAG	TGGTCTTTCC	TCATAATACC	AATCTAACAA	4920
ATGGTGTAGG	ACCTTCCATT	GCGCGTGACA	TTATCAATCT	GTATCAAAAA	TACCATCCAA	4980
TGAATTAGAA	AGGAAATTAT	GCTTTATCCA	ACACCTATTG	CCAAGTTGAT	TGACAGTTAT	5040
TCTAAGTTAC	CAGGTATCGG	GATTAAGACG	GCTACGCGTC	TGGCCTTTTA	TACGATTGGG	5100
ATGTCTGCTG	ATGATGTCAA	TGAATTTGCA	AAAAATCTCC	TTTCTGCTAA	GAGAGAATTG	5160
ACATATTGTT	CTATTTGTGG	ACGTTTGACA	GACGACGATC	CTTGTCTCTAT	CTGTACTGAT	5220
CCGACTCGTG	ACCAGACAAC	AATTTTAGTT	CTTGAGGATA	GTAGAGATGT	GGCAGCCATG	5280
GAAAATATCC	AAGAATACCA	TGGACTCTAT	CATGTCCTTC	ATGGCCTCAT	TTCTCCTATG	5340
AATGGTATCA	GTCCGGACGA	TATCAATCTC	AAGAGCCTTA	TGACTCGTCT	TATGGATAGT	5400
GAGGTTTCAG	AAGTGATTGT	GGCGACTAAT	GCTACAGCGG	ATGGTGAAGC	GACTTCCATG	5460
TATCTTTCAC	GTTTGCTCAA	GCCGGCTGGT	ATCAAGGTTA	CGCGTCTAGC	ACGAGGTCTC	5520
GCTGTGGGAG	CGGACATTGA	GTATGCGGAC	GAAGTGACAC	TCTTACGAGC	CATTGAAAAT	5580
CGGACAGAGT	TGTAAGTGTA	GGCAAATTTA	CGAACTCCAT	TCATTTATAA	AAAATCAAAG	5640
AGGCTGAAAA	TCGTTCCCTAT	CGGCCTCTTT	TTGTATAGTG	TGATGAGTAG	GCTCAGGTTC	5700
AAGTTTTAAA	AAACCAAGCA	AATATGATAT	ACTAAAGAGC	GACTATTCTA	GTAGAATTAG	5760
GACAAATAAT	ATGAAACAAA	CGATTATTCT	TTTATATGGT	GGACGGAGTG	CGGAACGCGA	5820
AGTCTCTGTC	CTTTCAGCTG	AGAGTGTCAT	GCGTGCGGTC	GATTACGACC	GTTTCACAGT	5880
CAAGACTTTC	TTTATCAGTC	AGTCAGGTGA	CTTTATCAAA	ACACAGGAAT	TTAGTCATGC	5940
TCCGGGGCAA	GAAGACCGTC	TCATGACCAA	TGAAACCATT	GATTGGGATA	AGAAAGTTGC	6000
ACCAAGTGCT	ATCTACGAAG	AAGGTGCAGT	GGTCTTTCCA	GTCTTTCACG	GGCCAATGGG	6060
AGAAGATGGC	TCTGTTCAAG	GATTCTTGGA	AGTTTTGAAA	ATGCCTTACG	TTGGTTGCAA	6120
CATTTTGTC	TCAAGTCTTG	CCATGGATAA	AATCACGACT	AAGCGTGTTT	TGGAATCTGC	6180
TGGTATTGCC	CAAGTTCCTT	ATGTGGCTAT	CGTTGAAGGC	GATGATGTGA	CTGCTAAAAT	6240
CGCTGAAGTG	GAAGAAAAAT	TGGCTTATCC	AGTCTTCACT	AAGCCGTCAA	ACATGGGGTC	6300
TAGTGTCCGT	ATTTCTAAGT	CTGAAAACCA	AGAAGAACTC	CGTCAAGCCT	TAAAACTTGC	6360
CTTCCGATAT	GACAGCCGTG	TCTTGGTTGA	GCAAGGAGTG	AATGC		6405

(2) INFORMATION FOR SEQ ID NO: 108:

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- (i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 11309 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 108:

CGAGCTCGGG TACCGGGATT TTAAGGAGTT TGATATGTAT AACCTATTAT TAACCATTTT	60
ATTAGTATTA TCTGTTGTGA TTGTGATTGC AATTTTCATG CAACCAACCA AAAACCAATC	120
CAGCAATGTA TTTGATGCCA GTTCAGGTGA TTTGTTTGAA CGCAGTAAAG CTCGCGGTTT	180
TGAAGCTGTA ATGCAGCGTT TGACAGGGAT TTTAGTCTTT TTCTGGCTAG CCATTGCCTT	240
AGCATTGACG GTATTATCAA GTAGATAAGA AAATAATGGG CAGGACTAGG TCTTTGCCTC	300
TTTTTATTTT TAAAGGATGT TTGAGAAGGT TTTACAGTAA AAGAAAATTA AAAAATCTAG	360
AAAGAAAATA TGAAAGATAG AATAAAAGAA TATTTACAAG ACAAGGGAAA GGTGACTGTT	420
AATGATTTGG CTCAGGCTTT GGGAAAAGAC AGTTCCAAGG ATTTTCGTGA GTTGATTAAA	480
ACCTTGTCTT TAATGGAAAG AAAGCACCAA ATTCGTTTTG AAGAAGATGG TAGTCTGACA	540
TTAGAAATTA AGAAAAACA TGAGATTACC CTCAAGGGGA TTTTTCATGC CCATAAAAAT	600
GGCTTTGGCT TTGTTAGTCT GGAAGGCGAG GAGGACGACC TTTTGTAGG GAAAAATGAT	660
GTCAACTATG CTATTGATGG TGATACCGTC GAGGTAGTGA TTAAGAAAGT CGCTGACCCG	720
AATAAGGGAA CAGCAGCAGA AGCCAAAATT ATTGATATCC TAGAACACAG TTTGACAACA	780
GTTGTCGGGC AAATCGTTCT GGATCAGGAA AAACCTAAGT ATGCTGGCTA TATTCGTTCA	840
AAAAATCAGA AAATCACTCA ACCGATTTAT GTTAAGAAAC CAGCCCTAAA ATTAGAAGGA	900
ACAGAAGTTC TCAAAGTCTT TATCGATAAA TACCCAAGCA AGAAACATGA TTTCTTTGTC	960
GCGAGTGTTT TCGATGTAGT GGGACACTCA ACGGATGTCG GAATTGATGT TCTTGAGGTC	1020
TTGGAATCAA TGGACATTGT ATCCGAGTTT CCAGAAGCTG TTGTTAAGGA AGCAGAAAGT	1080
GTGCCTGATG CTCCGTCTCA AAAGGATATG GAAGGTCGTC TGGATCTAAG AGATGAAATT	1140
ACCTTTACCA TTGACGGTGC GGATGCCAAG GACTTGGACG ATGCAGTGCA TATCAAGGCT	1200
CTGAAAAATG GCAATCTGGA GTTTGGGGTT CACATCGCAG ATGTTTCTTA TTATGTGACC	1260
GAGGGGTCTG CCCTTGACAA GGAAGCCCTT AACCGTGCGA CTTCTGTTTA CGTGACAGAC	1320
CGAGTGGTGC CAATGCTTCC AGAACGACTA TCAAATGGCA TCTGCTCTCT CAATCCCCAA	1380
GTTGACCGCC TGACCCAGTC TGCTATTATG GAGATTGATA AACATGGTCG TGTGGTCAAC	1440
TATACCATTA CACAAACAGT TATCAAGACC AGTTTTCGTA TGACCTATAG CGATGTCAAT	1500

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GATATCCTAG	CTGGCGATGA	AGAAAAGAGA	AAAGAATATC	ATAAAATTGT	ATCAAGTATC	1560
GAACTCATGG	CCAAGCTTCA	TGAAACTTTA	GAAAACATGC	GTGTGAAACG	TGGAGCTCTC	1620
AATTTTGATA	CCAATGAAGC	GAAGATTTTA	GTGGATAAAC	AAGGTAAGCC	TGTTGATATC	1680
GTTCCTCGGC	AGCGTGGTAT	TGCCGAGCGG	ATGATTGAGT	CTTTTATGTT	GATGGCTAAT	1740
GAAACAGTTG	CCGAACATTT	CAGCAAGTTG	GATTTGCCTT	TTATCTATCG	AATTCACGAG	1800
GAGCCTAAGG	CTGAAAAGGT	TCAGAAGTTT	ATTGATTATG	CTTCGAGTTT	TGGCTTGCGC	1860
ATTTATGGAA	CTGCCAGTGA	GATTAGTCAG	GAGGCAC TTC	AAGACATCAT	GCGTGCTGTT	1920
GAGGGAGAAC	CTTATGCAGA	TGTATTGTCC	ATGATGCTTC	TTCGCTCTAT	GCAGCAGGCT	1980
CGTTATTCGG	AGCACAAATCA	CGGCCACTAT	GGACTAGCTG	CTGACTATTA	TACTCACTTT	2040
ACCAGTCCAA	TTCGTCGTTA	TCCAGACCTT	CTTGTTCAAC	GTATGATTCTG	GGATTACGGC	2100
CGTTCTAAGG	AAATAGCAGA	GCATTTTGAA	CAAGTGATTC	CAGAGATTGC	GACCCAGTCT	2160
TCCAACCGTG	AACGTCGTGC	CATAGAAGCT	GAGCGTGAAG	TCGAAGCCAT	GAAAAAGGCT	2220
GAGTATATGG	AAGAATACGT	GGGTGAAGAG	TATGATGCAG	TTGTATCAAG	TATTGTCAAA	2280
TTCGGTCTCT	TTGTGCAATT	GCCAAACACA	GTTGAAGGCT	TGATTCACAT	CACTAATCTG	2340
CCTGAATTTT	ATCATTTCAA	TGAGCGTGAT	TTGACTCTTC	GTGGAGAAAA	ATCAGGTATC	2400
ACTTTCCGAG	TGGGTCAGCA	GATCCGTATC	CGTGTGAAA	GAGCGGATAA	AATGACTGGA	2460
GAGATTGATT	TTTCATTTCGT	ACCTAGTGAG	TTTGATGTGA	TTGAAAAAGG	CTTGAAACAG	2520
TCTAGTCGTA	GTGGCAGAGG	GCGTGATTCA	AATCGTCGTT	CGGATAAGAA	GGAAGACAAG	2580
AGAAAATCAG	GACGCTCAAA	TGATAAGCGT	AAGCATTCAC	AAAAAGACAA	GAAGAAAAAA	2640
GGAAAGAAAC	CTTTTACAA	GGAAGTAGCT	AAGAAAGGAG	CCAAGCATGG	CAAAGGGCGA	2700
GGGAAAGGTC	GTCCGACAAA	ATAAAAAGGC	ACGCCACGAC	TATACAATCG	TAGATACGCT	2760
AGAGGCAGGG	ATGGTCCTGA	CTGGAAGTGA	AATCAAGAGT	GTACGAGCTG	CTCGAATTAA	2820
TCTCAAGGAT	GGCTTTGCTC	AAGTGAAAAA	TGGAGAAGTT	TGGCTGAGCA	ATGTTCATAT	2880
CGCGCCTTAC	GAAGAGGGCA	ATATCTGGAA	CCAGGAACCA	GAACGTCGTC	GTAAACTCCT	2940
GCTCCATAAA	AAGCAAATTC	AAAAATTGGA	ACAAGAGATC	AAAGGGACAG	GAATGACCTT	3000
AGTTCCCTTT	AAGGTCTATA	TAAAAGATGG	CTACGCTAAG	CTTCTTTTAG	GACTTGCCAA	3060
AGGGAAGCAT	GACTATGACA	AACGGGAGTC	TATCAAACGT	CGTGAGCAAA	ATCGAGATAT	3120
CGCGCGTGTG	ATGAAAGCTG	TTAATCAGCG	ATAAAAAGAG	GAATTGAAAA	TGAAAAAATT	3180
AGTTGCCTAT	AAACGCATGC	CTTTGTGGAA	TAAACAAACA	ATGCCTGAAG	CTGTTGAGCA	3240

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AAAGCACAAT	ACAAAAGTTG	GGACTTGGGG	GAAAATTACT	GTCTTGAAGG	GAGCTCTCAA	3300
GTTTATTGAA	TTGACAGAAG	AAGGGGAAGT	TCTAGCTGAA	CACCTCTTTG	AAGCAGGGGC	3360
AGACAATCCA	ATGGCCCAAC	CTCAAGCCTG	GCACCGAGTG	GAAGCTGCCA	CAGATGATGT	3420
GGAATGGTAC	TTGGAATTTT	ATTGTAAACC	TGAGGATTAT	TTTGCTAAAA	AATACAATAC	3480
CAATCCTGTT	CATTCAGAGG	TCCTAGAGGC	CATGCAGACA	GTGAAACAAG	GGAAAGCTTT	3540
GGATTTGGGT	TGTGGTCAGG	GGCGTAATTC	TCTTTTCTA	GCCCAGCAAG	ATTTTGATGT	3600
GACGGCTGTA	GATCAAAATG	GACTAGCTCT	TGAAATCTTG	CAAAGCATTG	TGGAGCAGGA	3660
AGATTTGGAC	ATGCCTGTTG	GCCTTTACGA	TATCAATTCA	GCTAGCATTG	AACAAGAATA	3720
TGATTTTATC	GTTTCAACAG	TTGTTCTCAT	GTTTCTACAA	GCGGACCGCA	TTCCAGCTAT	3780
TATTCAAAAT	ATGCAGGAGA	AAACCAGTGT	TGGTGGTTAC	AACCTTATCG	TTTGTGCCAT	3840
GGACACGGAG	GATTATCCTT	GCTCGGTAA	CTTCCCATTC	ACCTTTAAAG	AAGGAGAACT	3900
GGCAGACTAT	TACAAGGATT	GGGAATTGGT	TAAGTACAAT	GAAAATCCAG	GCCATTTGCA	3960
CCGTCGCGAT	GAGAATGGCA	ATCGTATTCA	ACTACGCTTT	GCGACCTTAC	TAGCTAAGAA	4020
AATCAAGTAA	ACACACATGA	AGATTAGGAA	TTTCCCTGAT	CTTTTTTCTT	TTTTACGAAT	4080
GATATAGAAA	AGGAGGGAAT	TCATGTTTGT	TGCGAGAGAT	GCTAGGGGAG	AATTGGTAAA	4140
TGTGTTAGAG	GATAAACTTG	AGAAGCAAGC	ATACACCTGC	CCAGCTTGTG	GAGGCCAGCT	4200
CCATTTGCGT	CAAGGACCAA	GTGTACGGAC	GCATTTTGCC	CATAAATCCT	TAAAAGACTG	4260
TGATTTTTC	TTTGAAAATG	AAAGTCCAGA	ACACCTGGCC	AATAAGGAAT	CCCTCTATCA	4320
CTGGTTGAAA	AAAGAGACAA	AGGTTCAATT	AGAGTACCCG	CTTTCAGAAC	TTAAACAGAT	4380
TGCGGATGTA	TTTGTAATG	GCAATCTAGC	TCTAGAAGTT	CAGTGTAGTC	CCTTGCCTCA	4440
GAAAGTCCTT	AAAGAGCGAA	GTGAGGGCTA	TCGTAGTCAG	GGTTACCAAG	TACTGTGGTT	4500
GCTGGGTCAA	AAACTGTGGC	TCAAGGAGCG	TTTGACTCGT	CTACAGCAAG	GTTTTCTTTA	4560
TTTCAGTCAA	AACATGGGCT	TTTATGTTTG	GGAATTAGAC	AAGGAAAAAC	AAGTTTTAAG	4620
ACTCAAATAC	CTGATTTACC	AGGATCTCCG	CGGTAAACTC	CATTATCAAA	TCAAGGAATT	4680
TTCTATGGT	CAAGGTAGTT	TATTGGAAAT	ATTGCGTCTT	CCCTATAAGA	GACAAAAAAT	4740
ATCTCATTTT	ACAGTTTCTG	AGGACAAGGA	CATCTGTGCG	TATATCCGGC	AACAACTTTA	4800
TTATCAAAAT	CTCTTTTGGA	TGAAAGAACA	AGCAGAAGCC	TATCAAAAGG	GAGAAAATAT	4860
CCTGACTTAT	GGACTGAAAG	AATGGTATCC	ACAAATTCGA	CCAATAGTGG	GCAAATTTTT	4920
CCAGATTGAA	CAAGACTTGA	CTAGCTATTA	TCAGCACTTT	TATACCTATT	ACCAAAAAAA	4980
TCCTCAAAAT	GATTGGCAAA	AGCTTTATCC	ACCAGCCTTT	TATCAGCAAT	ATTTCTTGAA	5040

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AAATATGGTA	GAATAGAAAG	GATGGAGGAA	TCTAATGGTA	TTACAAAGAA	ATGAAATAAA	5100
TGAAAAAGAT	ACATGGGATC	TATCAACGAT	CTACCCAAC	TGACCAGGCTT	GGGAAGAAGC	5160
CTTAAAAGAT	TTAACAGAAC	AATTGGAGAC	AGTAGCCCAG	TATGAAGGCC	ATCTCTTGGA	5220
TAGTGCGGAT	AACCTACTAG	AAATCACTGA	ATTTTCTCTT	GAAATGGAAC	GCCAGATAGA	5280
GAAGCTTTAC	GCTTATGCTC	ATATGAAGAA	TGACCAGGAT	ACACGTGAAG	CTAAGTATCA	5340
AGAGTACTAT	GCCAAGGCCA	TGACACTCTA	CAGCCAGTTA	GACCAAGCCT	TTTCATTCTA	5400
TGAGCCTGAA	TTTATGGAGA	TTAGCGAAAA	GCAGTATGCT	GACTTTTTAG	AAGCTCAACC	5460
AAAGCTGCAG	GTTTATCAAC	ACTATTTTGA	CAAGCTTTTG	CAAGGCAAGG	ATCACGTTCT	5520
TTTACAACGT	GAAGAAGAAT	TATTGGCTGG	AGCTGGAGAA	ATCTTTGGTT	CAGCAAGTGA	5580
AACCTTCGCT	ATCTTGACAA	ATGCGGATAT	TGTGTTCCCT	TATGTCCTAG	ACGATGATGG	5640
TAAAGAAGTT	CAGCTATCTC	ATGGGACTTA	CACACGTTTG	ATGGAGTCTA	AAAAACGTGA	5700
GGTTCGCCGT	GGTGCCTATC	AAGCTCTTTA	TGCGACTTAC	GAACAATTCC	AACACACCTA	5760
TGCCAAAACC	TTGCAAAACCA	ATGTTAAGGT	GCAAAATTAC	CGTGCTAAAG	TTGTAAGTAA	5820
CAAGAGTGCT	CGTCATGCAG	CCCTCGCAGC	GAATTTTGTT	CCAGAAAGTG	TTTATGACAA	5880
TTTGGTAGCA	GCAGTTGCA	AGCATTGCCC	ACTCTTACAT	CGCTATCTTG	AGCTTCGTTT	5940
AAAAATCTTG	GGGATTTTCA	ATCTCAAGAT	GTACGATGTC	TACACACCGC	TTTCATCTGT	6000
TGAATACAGT	TTTACCTACC	AAGAAGCCTT	GAAAAAGCA	GAAGATGCTT	TGGCAGTCTT	6060
GGGTGAGGAT	TACTTGAGCC	GTGTTAAACG	TGCCTTCAGC	GAGCGTTGGA	TTGATGTTTA	6120
CGAAAATCAA	GGCAAGCGTT	CAGGTGCCTA	CTCTGGTGGT	TCTTATGATA	CCAATGCCTT	6180
TATGCTTCTC	AACTGGCAAG	ACAATCTGGA	CAATCTCTTT	ACTCTTGTTT	ATGAAACAGG	6240
TCACAGTATG	CATTCAAGCT	ATACTCGTGA	AACTCAGCCT	TATGTTTACG	GGGATTACTC	6300
TATCTTTTGG	GCTGAGATTG	CCTCAACTAC	CAATGAAAAT	ATCTTGACGG	AGAAATTATT	6360
GGAAGAAGTG	GAAGACGACG	CAACACGCTT	TGCTATTCTC	AATAACTTCC	TAGATGGTTT	6420
CCGTGGAACA	GTTTTCCGCC	AAACTCAATT	TGCTGAGTTT	GAACACGCCA	TTCACCAAGC	6480
AGATCAAAAT	GGGGAGGTCT	TGACAAGCGA	TTTCTTAAAT	AAACTCTACG	CAGACTTGAA	6540
CCAAGAGTAT	TATGGTTTGA	GTAAGGAAGA	CAATCCTGAA	ATCCAATACG	AGTGGGCTCG	6600
CATTCCACAC	TTCTACTATA	ACTACTATGT	ATATCAATAT	TCAACTGGCT	TTGCGGCCGC	6660
CTCAGCCTTG	GCTGAAAAAA	TTGTCCATGG	TAGTCAAGAA	GACCGTGACC	GCTATATCGA	6720
CTACCTCAAG	GCAGGTAAGT	CGGACTATCC	ACTTAATCTC	ATGAGAAAAG	CTGGTGTGTA	6780

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TATGGAGAAG	GAAGACTACC	TCAACGATGC	CTTTGCAGTC	TTTGAACGCC	GTTTAAATGA	6840
GTTTGAAGCC	CTTGTTGAAA	AATTAGGATT	GGCATAAAAT	GGTTGAATCG	TATAGTAAGA	6900
ATGCTAACCA	TAACATGCGT	CGTCCTGTCG	TCAAAGAAGA	AATTGTAGAC	TTGATGCGTC	6960
AGCGTCAAAA	GCAGGTCACA	GGTTTCTTGA	AAGAATTGGA	AGACTTTGCC	CGCAAGGAAA	7020
ATATTCTTAT	TATTECCCAT	GAAACGGTTG	CTTATTTCCG	TTTTCTTATG	GAAACCATGC	7080
AGCCTAAAAA	TATTCTGGAA	ATTGGGACGG	CTATCGGTTT	TTCAGCTCTC	TTGATGGCTG	7140
AACATGCGCC	AAATGCTAAG	ATTACAAC TA	TTGATCGTAA	TCCAGAAATG	ATTGGTTTTG	7200
CCAAGGAAAA	TTTTGCCCAG	TTTGACAGTC	GCAAGCAAAT	CACTCTCCTA	GAGGGAGATG	7260
CGGTGGATGT	CTTATCTACA	CTGACAGAGT	CTTATGATTT	CGTCTTTATG	GATTCTGCCA	7320
AGTCTAAATA	CATCGTCTTT	CTGCCAGAAA	TCCTCAAACA	TTTGGAAGTT	GGTGGTGTGG	7380
TTGTCTTGGA	TGATATTTTT	CAAGGTGGTG	ATGTTGCCAA	GGATATTATG	GAAGTCCGTC	7440
GTGGTCAGCG	AACCATTTAT	CGAGGCCTTC	AAAAATTATT	TGATGCAACC	TTAGACAATC	7500
CAGAACTCAC	CGCAACATTA	GTGCCTTTAG	GAGATGGTAT	TCTCATGCTT	CGTAAAAATG	7560
TAGCAGATGT	TCAACTGTCT	GAAAGCGAAT	GATTTTCAGA	AAAATTTAAG	AAAAATAGT	7620
AAAATAGATA	GAGTAACACT	TATCTCAAAG	GAGTAGACAT	GAAGAAAAAA	TTATTGGCAG	7680
GTGCCATCAC	ACTATTATCA	G TAGCAACTT	TAGCAGCTTG	TTCGAAAGGG	TCAGAAGGTG	7740
CAGACCTTAT	CAGCATGAAA	GGGGATGTCA	TTACAGAACA	TCAATTTTAT	GAGCAAGTGA	7800
AAAGCAACCC	TTCAGCCCAA	CAAGTCTTGT	TAAATATGAC	CATCCAAAAA	GTTTTTGAAA	7860
AACAATATGG	CTCAGAGCTT	GATGATAAAG	AGGTTGATGA	TACTATTGCC	GAAGAAAAAA	7920
AACAATATGG	CGAAAACTAC	CAACGTGTCT	TGTCACAAGC	AGGTATGACT	CTTGAAACAC	7980
GTAAAGCTCA	AATTCGTACA	AGTAAATTAG	TTGAGTTGGC	AGTTAAGAAG	G TAGCAGAAG	8040
CTGAATTGAC	AGATGAAGCC	TATAAGAAAG	CCTTTGATGA	GTACACTCCA	GATGTAACGG	8100
CTCAAATCAT	CCGTCTTAAT	AATGAAGATA	AGGCCAAAGA	AGTTCTCGAA	AAAGCCAAGG	8160
CAGAAGGTGC	TGATTTTGCT	CAATTAGCCA	AAGATAATTC	AACTGATGAA	AAAACAAAAG	8220
AAAATGGTGG	AGAAATTACC	TTTGATTCTG	CTTCAACAGA	AGTACCTGAG	CAAGTCAAAA	8280
AAGCCGCTTT	CGCTTTAGAT	GTGGATGGTG	TTTCTGATGT	GATTACAGCA	ACTGGCACAC	8340
AAGCCTACAG	TAGCCAATAT	TACATTGTAA	AACTCACTAA	GAAAACAGAA	AAATCATCTA	8400
ATATTGATGA	CTACAAAGAA	AAATTAAAAA	CTGTTATCTT	GACTCAAAAA	CAAAATGATT	8460
CAACATTTGT	TCAAAGCATT	ATCGGAAAAG	AATTGCAAGC	AGCCAATATC	AAGGTTAAGG	8520
ACCAAGCCTT	CCAAAATATC	TTTACCCAAT	ATATCGGTGG	TGGAGATTCA	AGCTCAAGCA	8580

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GTAGTACATC AAACGAATAG TCCAAATCAA TGAGTCAGGG AAAAACTCG ACTTCAGGAA	8640
AAAATGAAGC AAACATTCCC ACAATAAAAC GCATAGTACA AGGTTTGTAC TGCCCCCAA	8700
AAAGTTAGAC AATTAATTTA TCCGAAGGAT TTAGTTCTGT ATTGCACAGA GCTAAGTCCT	8760
TTTAGTTTTA TCTTAATTCT CTTATTGTTG TAATAATCAA TATAGTCTAT AATGGCTCGT	8820
TCCAATTGAT TAAGTGATTT AAATGTTTTT TCATAGCCAT AAAACATTTT GGATTTTAAA	8880
ATGCCAAAGA AAGATTCCAT CCTACCGTTG TCTTGGCTGT TGCCCTTACG TGACATGGAT	8940
GCTTGAATTC CCTTACTCTC TAGGAAGCGA TGATAAGAAT CGTGTGATA TTGCCAGCCT	9000
TGGTCACTAT GGAGAATCGT ATTCTCGTAG TGCTTCTCTT TGAATGCCTG TTCCAACATT	9060
AACGATCAAT CAATTTAATC ATGTACCTAA GATTAGAATT GTTTATCCCA AATTTATTTG	9120
AAAGCTTCTC TAAGCTATAT CCTTGTTTTT TAAGTTCATA GATCTGAACT TTATCATCAT	9180
AAGTTAATTT CATAATAAAA ACACCCCAA AGTTAGATTT TTTCTGTCTA ACTTTTGGGG	9240
TGTAGTTCAT GTACACCTGA TATGATGCGT TTTATAATTT TAAAGACTTT TTGACCAGCC	9300
TCATTTTTTT AACTTGATAC TCAGTGAAAA GCAAAGATTA AACTAGGAAG CTAGCTGTAG	9360
GCTGCTCAAA GAACAGCTTT GAGGTTGTAG ATAAACTTG TGAGGTCACC AACATATATA	9420
ATGTGAAGCT GACGTGGTTT GAATAGATTT TAGAAGAGTA TGAGTCTGGA AGTTTAAATG	9480
GATAATGCAA GATTCCATAG AATGGGTAAG CTAGAGTTCT TATGTGAAGA GTTTGGGCAT	9540
AAACTTTTAC CTTTTCCTCC CTAATCATCT TAGTATAGAA AAGTGAATCT GAAATAGTAC	9600
ATAACTGCTT CTAAACATT CTTATAAATT GATTTAAATT CTCAAATCAT ATTATTCACT	9660
TCTTATTTCA TTTTGTCTA CAATCCTGTT GAGAAGACAC GTGTTCATAT CAAAAAGGTA	9720
TTGGCAAGTT GCAATACCTT TTTACGAGGC TCTGTTGTCT TATTTTTGTT TCAACTGACT	9780
ATATCTCCTA TGGTCTAGT TCAGAAGGCT AGGCTATAAT TATGATTGAT AAGAAGTATC	9840
ATTCCAAGTA TTGGGAGTGA ATGTTTCAAA ATCATGGGTT TCTATAATGG TCAGGCTGGC	9900
ATTTGCTAGA CCGCCATCTT TACGAAGAAG TGGTTCTTTA TAGCCTAGGA GAGTACGAAG	9960
ACTGGCAGTA AGATTGGCGC CGTGTCCGAC AATTAGAATA CGTTCAGCTG GACTATCTTT	10020
TAATGATTTG ATAAATTGGA TGGTCCGTTG AGTTGTACTA TAGAGGGATT CGGCTCCGAA	10080
CATTCGAGTG TCAAATTGAG CAAGATTTGA ACGAAAAGCC TGGATTTGTT GCGGGTAAAT	10140
AGCTTCCAAG GTTGCAATTT TCAAACCTTC TAACTTCCCA AGTTGCCATT CACGGAGATT	10200
AGGAACGATT TCTAAGAAC AGGGGGTATA GAGTTGACTT TGGATAATCT CAGCAGATTT	10260
GACCGCTCGA GGTAAATCAC TTGAATAAAT CTGATCAAAA GGAATTCCTT TGAGATACTG	10320

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ACCAAGTCGT TTTAGGGTTT CAATGGATTC AGGAAGAAGA GGAGAATCAC CACTAGCACC	10380
TTGAAAACGA CCTTCTTGGT TCCAGAGGGT ACGACCGTGG CGGACAAAGT AGAGTTTCAT	10440
TACTTGATGT CCTCCAAAT ATCTACAAAG TCTGCCTTTA CAAAGCTAGC CAAGTCTTGT	10500
GGCGCGACGA TAATGCTGTG TCCGACTTCG CCTGCAGAGA CAATCATTTG ATCCAAATCT	10560
AGAGCAATTT TATCGATAAA AATGGGATAA TTGTGTTTCT GACGAATTCC GACAGGATTA	10620
TTGGCTCCAT GAATGTAACC AGTTGTTTTT TCTAAGTCCT TTTGTGGAAT CATGCTCACT	10680
TTTTTATTGC CAGAAATTTT AGCTAGTTTC TTTTCAGACA AGTGCTGAGT GATAGGGACA	10740
ATTCCGATAA TCGGTCCGGT CTTGTCTCCC AAAAGCGCCA AGGTTTTGAA AATCTGATCT	10800
CGTTCATAAC CTTGAGGAAG CTCTCCTTCT AGGGCATTGA TTTGAATCCC CTGATGAGGG	10860
ATAGCTGCTT TAGATAGGAT TTGTTCCACC AATGTTTTTT TGATTTTAAC TTTTTTTGCC	10920
ATTATTTATA TTTATCCTCC AATTGACTCA TCCAAATACC AAGCCAGATT CCCAGCGCAA	10980
AGAAGAAGGC GATGATGACA TAACCGACAA GTGAAAGTCC TGTGTATTGG ATACTTTCAG	11040
CGTTTCCTGC ATTTGGAATT AAGATCAAAA GGTACTTGA TAGGACGATA CCGATGATGA	11100
AATGATAGAC GAACTGTTTA CGGAGTTCTT CTAGTTCTCC GTCCGTCCAA GCGTAGGCCA	11160
CTTCTTCTTT CTTGCCTTTA CCTTTGGACA TCTTGTAAG AGGTGGGAGG GCAATATAGA	11220
CATGACCTGC CTCGACTAGC GGACGCATGT AACGGTAGAA AAATGTCAAG AGCAAGGTCT	11280
GGATATGGGC ACCGTCGGTA TCCGCATCG	11309

(2) INFORMATION FOR SEQ ID NO: 109:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 5548 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 109:

CCATAGTCTA ACAAGTCTTT GTAAAGGTTT ATCCCTGATT CATGTAAAGA TTGTGTAAAG	60
AATCAAAAAA AGCCACTTTT GAAAAATGGC TGCTCCTAAA AATAGCTTTA AAAATTATTA	120
GTCTGTGCG AAAGATTGGT TAGGAAGAAA AATCGTGAAG CAACTGCCTC TGCCAAGCTG	180
ACTCGTCACC GTGACTTGGC CACCTAATAA TTGACTGAGT TCTTTGACAA TGGCAAGGCC	240
AAGACCAGTG CCACCAGTTT GTCTGCTTCG ACCTTTATTA ACTCGGTAAA AACGTTCAAA	300
AATACGATCC TGCTCTAATT GACTAATACC AATCCCTGTA TCTGATACAG AAATCTTAAT	360
GCCTTCGTTT ACCTTTTGGG TCTTGACCTC AATTTTCCC CCTTGTTTCTAG TGTAACGGAT	420

801

GGCATTGGAT AAAAGATTGA GTAAGATTTG GGAAAGTAAT TGACTATCTG ATACGAGGGT	480
GACATCATCT GGCACCTGCA CCTTTAGCTG TAAATCCTTC TTCTTGAGCT GAGGTTGCAA	540
GCTTTGAGTC AAATCCTGTA CAAATTCTGC CAAAGAAAGG GTCGTCCATT GTATAGGCAT	600
TTGTTGAGCC TTAGATAAGG TAAGAAGATG CTCAACAATA TGCTCAAGAC GCAAACCTTC	660
TTTGTAATA ATGTCTAGAA AGTCATCCTT GAGCGCTTCT TCTTCAGCTG ACATCCCCCTT	720
AATGGTTTCA GCAAAGCCCT TAATCGAAGT AACTGGTGTC CTCAATTCAT GGGAGGCATT	780
TGAGACAAAG GCTAAATTTA ACTTTTCATA AGTTCTAATC GTTGTTAAAT CATATAGCAA	840
GACGAGCACA GCTTCCACAG ATTGGGTGGG GCTAAAAACG GGAACCTGCTG TCACTTCTAA	900
AATCAAGTCA CCCTCATGAA ACCCACTTAC TTCTTGTTTT AACCTTGTTT TTTGATCAAA	960
GGCTTGGTGA ACTAAATTCC GAATATCCAT CCGTTTGAGG TCATCAAGTG AACTTATGTC	1020
GCCGTCCACA TCGGGAAAAT AATGAGGCAG AGAGCGACTG GATAATAACA TCTGACCTTG	1080
AGCGGAAACT AAAAACGTCC CCATGGTTAG GTGCGACAGA AGAACCTCCA TTGTTTCGGC	1140
TAGATCCTTG TATTGCTGAT CCTGTTGGGA GACTTTGGTT TTTAGGCCAG ACACATACTG	1200
AGCCAAAGAC TTAAAGTCTT CTGCCCCTT TTCTAAAAAG TATTCACTAC TGGTCAAGAG	1260
AGGTTGGTGC AAGGTCTCAA AAGCAACTTC CCATTTCCAA AGGCAAAAGA GCCAGTAGCC	1320
ACCTAGTCCC AAAGAAAGGG CTAGAAGAAA GAGACCGATG CCTTTACTGA TCCAAGTTAA	1380
TGCCATCCCT GCAATCAGAA TGAGGCTAAC ACTTAGATTG ACTAGCCAAA ATTGAAGGTA	1440
GCGTTTCATC TATAACTCCT TGAACCTATA ACCATAACCC CGAATGGTTC GAATAAATTG	1500
AGGGGCTTTA GGATTGTCTT CAATTTTTTC CCTCAACTTA CCAATATGAA CGTCCACCAA	1560
ACGTGTTTCC TGCCCAAAGT CATACCCCCA GATACGTTCC AAAAGACGCT CTCTAGTCAG	1620
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CAGTAACTTA TTCGCCTTGT AGACTTCATG ACGCTCAGGG TATACTTTCA AGGTCCCAA	1740
TAGCCAAGAA TCGTCAGCGA TATTATCTGA ATCATCTCCT TCTTGTTCTC CTTTAGTTCTG	1800
CCTGAGGACA GCCTTGACAC GCGCCAGCAA TTCTCTAGGG CTAAAAGGCT TGGTCAGGTA	1860
GTCATCAGCC CCTAATTCCA AGGCCAAAAC CTTATCAAAT TCATCACTTT TCGCAGAAAC	1920
CATCATAATT GGAGTTTGA CGCCTTTGGC TCTCAGCCGC TTACAAACTT CCATGCCATC	1980
TAATTGTGGT AACATGATAT CAAGCAAGAT AAAATCAAAG GGTTCGTGTT CTGCCAAAGC	2040
TAAGGCCTTC CGTCCATTTG TCACCAATTG AGTAGAAAAG CCTTCCTTAC TTAAATGGTA	2100
GTCAAGCAAT TTCAGAATGT GTTCTTCATC ATCCACTAAT AAGACTTGTT TTGTCATCTA	2160

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TTATCTCCTA TTGGTAACAT TATAACACAA TTATCAGAAA TCCTAACATT GCTAAATCAG	2220
ATTAAATTG CCTATCAAGA CTAGTATCTG GTCAAACGCT CAATCATCTC CTTGTGCTCT	2280
GGATAGGTCG CCAGTAGATC TACCCTTTCA AATAATTCAA AATCCTCAAA TTCAAAACCA	2340
GGAGCAACAA GACAAGAAAC CAGAGCATCA TCCTTATCAA CTGTTGATCC CCAAATAGTG	2400
CCCTTAGGAA CACAGTAGTG AAGTTGTTGC CCTTTGGATA TGTCCAGGCC TAAAGTGAAT	2460
GCTTCGTAGT GACCATCTGC TGTAATCATG TGAACAGTAA GTGGGGATCC TGCATGAAAA	2520
TACCAGATTT CATCTGCTGT CAATCGGTGA AAATGTGAAG GATTCGTTTC TTCTAATAAG	2580
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CGATTTCAAG AACTCCTCTC AGTTCTGAGG ACACGGTAAT GATTGATGCG ACGGAAGTAC	2820
AAATCAATCG CCCTAAAAAA AGAATTAGCG AATGATTCTG GTAAAAAAA TGCCACGCTA	2880
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ACTATTGTCA TGATATGAAG TTGTTCAAAA TGAGTCGCAG AAATATCGGA CAAGCTGGTA	3000
AAATCTTGGC TGACAGTGGT TATCAAGGGC TCATGAAGAT ATATCCTCAA GCACAACTC	3060
CACGTAAATC CAGCAAACTC AAGCCACTAA CAGTTGAAGA TAAAGCCTAT AACCATGCGC	3120
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TTCAACAAC CTATCGAAAT CATCGTAAAC ACTTCGGATT ACGAATGAAT TTGATTGCTG	3240
GCATTATCAA TCATGAACTA GGATTCTAGT TTTGCAGGAA GTCTATTATT TGGTTAGGTG	3300
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ATATTTAGGG GTCATGACTA GTGAAGCAGT TAGCTAGTTC GCATATAAGC GGCTAGCGTC	3420
TAACAATTAG GAACTTTAGT TCCAATAACT TTAAGATTAC GACGTTTTAG GACATAAATC	3480
GATCATATTT ATGTCCTAAA ACTAGTGAAG CGCCTAGCCA AAGTCCGAAT AGGATTTGCG	3540
GTTAGTTACT TAGATTGCTT TGCAATCAAG TAACTTTGGC GATTTACATC TTCTCTGGCG	3600
CTTCTACTCC AAGCAAGCGA AGGGCTTCTT TGAGAACGAC TGCGGTTGCG TAGCTGAGGG	3660
CTAGACGGCT GTCGCGTTCT GGGCTTTCAT CCAAGATACG TGTATGTGCA TAGTATTTGT	3720
TAAAGGATTG AGCCAGGCTA ATTGCAAAT TAGCAATGAT AGAAGGTTCA AAGTTATCTG	3780
CCGCACGGTT GATAATACGT GGAAGTCTT GAATGAGTTT AATGATTTCC CAGCTTTCAG	3840
TATCATTTCAA GCTATAGTTG CCAGCTGTTT CTGGTTTGAA ATCGGCTTTG CGTAAGATAG	3900
ATTGGATACG AGCGTAGGCA TATTGAACGT AAGGTCCAGT TTCACCCTCG AAGGATACCA	3960

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TAGCCTCTAG GTCGAAGTCG TATCCATTTG TACGGTCGGT TTTGAGGTCA TAGAATTTAA	4020
TGGCTCCAAT CCCAACAGCA TGTGCTACTT GGTCTTTGTT TTCTAGTTCA GGATTTTTAG	4080
CCTCGATTTG GACCTTGGCA CGGCTAACAG CCTCTGCAAC AGTAGGCTCT AGCAAGATGA	4140
CATTCCCTTT ACGAGTAGAG AGTTTCTTCC CTTCTTTTGT AACCAAACCA AAAGGAACGT	4200
GAGTAATGTC GTCACTCCAG TCGTAGCCCA TCTCTTGCAA GACAGCTTTG AGCTGTTTAA	4260
AGTGGGCAGA TTGTTCTTGA CCAACGACAT AGATAGATTT AGCAAATTGG TATTCGTTTT	4320
TACGGTAGAG GGCTGCAGCC AAGTCACGTG TGATATAGAG AGTTGCACCA TCAGACTTCT	4380
TGATGAGGGC TGGATGTTCA ATTCCATATT TCTCAAGATT CACAACCTGG GCACCTTCTG	4440
ATTCAAGAAG TAGTCCTTTT TCAGAAAGAA TGTCTACAAC TGCATCCATC TTATCATTGT	4500
AGAAGGCTTC TCCGTTATAG CTGTCAAATT CAACCTTCAA TTCATTGTAA AGGCGGTTAA	4560
ATTCCACTAA ACTTTCATCG CGGAACCATT GCCAAAGAGC GAGAGCTTCC TCATCTCCAT	4620
TTTCAAGTTT ACGGAACCAT TCGCGCGCTT CTTCATCCAA GCTAGGGTCA TTTTCAGCTT	4680
CAGCGTTGAT GCGGACATAG AGTTTAAGGA GTTCATCGAT TGGATGAGCT TTTACAGCTT	4740
CTTCGTCGCC CCATTTTTTG TAGGCAACAA TCAACATCCC AAATTGTTTA CCCCAGTCTC	4800
CCAAATGGTT GACCTTGACC GTTTGATAAC CGATTTTTTG GAAAATATGT GACAAGCTAT	4860
CTCCGATAAC AGTTGAACGC AGGTGGCCAA TAGAAAATGG TTTAGCGATA TTCGGACTAG	4920
ACATGTCGAT AACAACATTT TCTTGTTTAC CAATATTTTG GTCAGCATAG TGTCTTTTTT	4980
CAGTGGTAAC AGCTTGCAAT ACTTGAGCAG AAATGGCAGA TTTATCAAGG AAAAAGTTAA	5040
CGTAAGGTCC TGTGCGACA ACTTTTTCAA AGGCTTGGCT GTTCATTTTT TCAGCCAGTT	5100
CAGCCGCAAT CATTTGTGGT GCTTTACGTT CGACTTTTGC AAGAGAAAAA GCAGGGAAAAG	5160
CAATGTCTCC CATTTCTGAG TTTTAGGGG TTTCCAGTAA CTTTAAATA GCCTCTTGGT	5220
CCAGGCTATC AATGATGCTA GATAATTCCG TAGCAATCAA TTCTTTTGTA TTCATTAAGA	5280
GCTCCTTTTT GGACTTTTCT ACTATTTTAT CACAATTTTA AAGAAAGAAG AAAAAATTTT	5340
TGAAATCTCC TGTTTTTTTG GTATAATATG GTTATAAATA TAGTTATAAA TATGCACGCA	5400
AGAGGATTTT ATGAGAAAAA GAGATCGTCA TCAGTTAATA AAAAAATGA TTAAGGAGGA	5460
GAAATTAAGT ACACAAAAAG AAATTCAAGA TCGGTTGGAG GCGCACAATG TTTGTGTGAC	5520
GCAGACAACC TTGTCTCGTG ATTTGCGG	5548

(2) INFORMATION FOR SEQ ID NO: 110:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 3132 base pairs

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(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 110:

TACCCGGTAG TCTTAGCAGA CACATCTAGC TCTGAAGATG CTTTAAACAT CTCTGATAAA	60
GAAAAAGTAG CAGAAAATAA AGAGAAACAT GAAAATATCC ATAGTGCTAT GGAAACTTCA	120
CAGGATTTTA AAGAGAAGAA AACAGCAGTC ATTAAGGAAA AAGAAGTTGT TAGTAAAAAT	180
CCTGTGATAG ACAATAACAC TAGCAATGAA GAAGCAAAAA TCAAAGAAGA AAATTCCAAT	240
AAATCCCAAG GAGATTATAC GGACTCATTT GTGAATAAAA ACACAGAAAA TCCCAAAAAA	300
GAAGATAAAG TTGTCTATAT TGCTGAATTT AAAGATAAAG AATCTGGAGA AAAAGCAATC	360
AAGGAACTAT CCAGTCTTAA GAATACAAAA GTTTTATATA CTTATGATAG AATTTTTAAC	420
GGTAGTGCCA TAGAAACAAC TCCAGATAAC TTGGACAAAA TTAAACAAAT AGAAGGTATT	480
TCATCGGTTG AAAGGGCACA AAAAGTCCAA CCCATGATGA ATCATGCCAG AAAGGAAATT	540
GGAGTTGAGG AAGCTATTGA TTACCTAAAG TCTATCAATG CTCCGTTTGG GAAAAATTTT	600
GATGGTAGAG GTATGGTCAT TTCAAATATC GATACTGGAA CAGATTATAG ACATAAGGCT	660
ATGAGAATCG ATGATGATGC CAAAGCCTCA ATGAGATTTA AAAAGAAGA CTTAAAAGGC	720
ACTGATAAAA ATTATTGGTT GAGTGATAAA ATCCCTCATG CGTTCAATTA TTATAATGGT	780
GGCAAAATCA CTGTAGAAAA ATATGATGAT GGAAGGGATT ATTTTGACCC ACATGGGATG	840
CATATTGCAG GGATTCTTGC TGGAAATGAT ACTGAACAAG ACATCAAAAA CTTTAACGGC	900
ATAGATGGAA TTGCACCTAA TGCACAAATT TTCTCTTACA AAATGTATTC TGACCGAGGA	960
TCTGGGTTTG CGGGTGATGA AACAATGTTT CATGCTATTG AAGATTCTAT CAAACACAAC	1020
GTTGATGTTG TTTCGGTATC ATCTGGTTTT ACAGGAACAG GTCTTGTAGG TGAGAAATAT	1080
TGGCAAGCTA TTCGGGCATT AAGAAAAGCA GGCATTCCAA TGGTTGTCCG TACGGGTAAC	1140
TATGCGACTT CTGCTTCAAG TTCTTCATGG GATTTAGTAG CAAATAATCA TCTGAAAATG	1200
ACCGACACTG GAAATGTAAC ACCAACTGCA GCACATGAAG ATGCGATAGC GGTGCTTCT	1260
GCTAAAAATC AAACAGTTGA GTTTGATAAA GTTAACATAG GTGGAGAAAG TTTTAAATAC	1320
AGAAATATAG GGGCCTTTTT CGATAAGAGT AAAATCACAA CAAATGAAGA TGAACAAAA	1380
GCTCCTAGTA AATTAAAATT TGTATATATA GGCAAGGGGC AAGACCAAGA TTTGATAGGT	1440
TTGGATCTTA GGGGCAAAAT TGCAGTAATG GATAGAATTT ATACAAAGGA TTTAAAAAAT	1500
GCTTTTAAAA AAGCTATGGA TAAGGGTGCA CGCGCCATTA TGGTTGTAAA TACTGTAAAT	1560

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TACTACAATA GAGATAATTG GACAGAGCTT CCAGCTATGG GATATGAAGC GGATGAAGGT	1620
ACTAAAAGTC AAGTGTTTTTC AATTTTCAGGA GATGATGCTG TAAAGCTATG GAACATGATT	1680
AATCCTGATA AAAAACTGA AGTCAAAAGA AATAATAAAG AAGATTTTAA AGATAAATTG	1740
GAGCAATACT ATCCAATTGA TATGGAAAGT TTTAATTCCA ACAAACCGAA TGTAGGTGAC	1800
GAAAAAGAGA TTGACTTTAA GTTTGCACCT GACACAGACA AAGAACTCTA TAAAGAAGAT	1860
ATCATCGTTC CAGCAGGATC TACATCTTGG GGGCCAAGAA TAGATTTACT TTTAAAACCC	1920
GATGTTTCAG CACCTGGTAA AAATATTAAA TCCACGCTTA ATGTTATTAA TGGCAAATCA	1980
ACTTATGGCT ATATGTCAGG AACTAGTATG GCGACTCCAA TCGTGGCAGC TTCTACTGTT	2040
TTGATTAGAC CGAAATTAAA GGAAATGCTT GAAAGACCTG TATTGAAAAA TCTTAAGGGA	2100
GATGACAAAA TAGATCTTAC AAGTCTTACA AAAATTGCCC TACAAAATAC TGCGCGACCT	2160
ATGATGGATG CAACTTCTTG GAAAGAAAAA AGTCAATACT TTGCATCACC TAGACAACAG	2220
GGAGCAGGCC TAATTAATGT GGCCAATGCT TTGAGAAATG AAGTTGTAGC AACTTTCAAA	2280
AACACTGATT CTAAAGGTTT GGTAAACTCA TATGGTTCCA TTTCTCTTAA AGAAATAAAA	2340
GGTGATAAAA AATACTTTAC AATCAAGCTT CACAATACAT CAAACAGACC TTTGACTTTT	2400
AAAGTTTCAG CATCAGCGAT AACTACAGAT TCTCTAACTG ACAGATTAAA ACTTGATGAA	2460
ACATATAAAG ATGAAAAATC TCCAGATGGT AAGCAAATTG TTCCAGAAAT TCACCCAGAA	2520
AAAGTCAAAG GAGCAAATAT CACATTTGAG CATGATACTT TCACTATAGG CGCAAATTCT	2580
AGCTTTGATT TGAATGCGGT TATAAATGTT GGAGAGGCCA AAAACAAAAA TAAATTTGTA	2640
GAATCATTTA TTCATTTTGA GTCAGTGGAA GCGATGGAAG CTCTAAACTC CAGCGGGAAG	2700
AAAATAAACT TCCAACCTTC TTTGTCGATG CCTCTAATGG GATTTGCTGG GAATTGGAAC	2760
CACGAACCAA TCCTTGATAA ATGGGCTTGG GAAGAAGGGT CAAGATCAAA AACACTGGGA	2820
GGTTATGATG ATGATGGTAA ACCGAAAATT CCAGGAACCT TAAATAAGGG AATTGGTGGA	2880
GAACATGGTA TAGATAAATT TAATCCAGCA GGAGTTATAC AAAATAGAAA AGATAAAAAT	2940
ACAACATCCC TGGATCAAAA TCCAGAATTA TTTGCTTTCA ATAACGAAGG GATCAACGCT	3000
CCATCATCAA GTGGTTCTAA GATTGCTAAC ATTTATCCTT TAGATTCAAA TGGAAATCCT	3060
CAAGATGCTC AACTTGAAAG AGGATTAACA CCTTCTCCAC TTGTATTAAG AAGTGCAGAA	3120
GAAGGATTGA TT	3132

(2) INFORMATION FOR SEQ ID NO: 111:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 14672 base pairs

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(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 111:

CGAGATTTCT TTAAATGAAC TACGTGAAAT CTACCCATCA TCCAGATCTG GATATTCTCT	60
CCTATCTATA AGTAAAGTTT TAGGAGATTT TAATATAAGT TCTCATGCTT TTAAAGCTTC	120
GGTAAGAGAT TTAAAACCGC TCAGTTTCCC ACTCATTTGC TTCTGGGAGA GTTCTCATTT	180
TATTATTCTT GAAAAAATTA GTAAAAACAA GTTTTATATT TTAGATCCTG CAAAAGGCAG	240
GCAGAGAATG TCAATAAGTG AATTTGAAAG GCATTATTCA AATATCATTT TAACATTTAA	300
AAAGTTAGAT AGCTTTATGT CTCGTAAAGA TAATAAGAAG TCGCCTGTTT TAAAGTATTT	360
TTTAAAGTAT AGGAATAAGC TAGGGATTTT ATTTTGTGTA ACAGCATTAT TGTATGTAAT	420
ACAATCATTA GTACCTATAG CTAATAGATA CATAATTGAC ACGAATTTCA AGGACGATTC	480
GTATTCGTCT AGAATGTTAT TTAATATATT ATTTATATTT ACTGTTTCAT TCTCACTAAT	540
GTATTTATTA AGACAGATAT ATGTTGCATC CTTAAAATAT ATAATGGATA AAGAGATTAG	600
CTATGATTTT ATGAAACATT TGATATATTT ACCTTACAGT TTTTATGAAA AACGTACTTT	660
AGGGGATATA CTTTTTAGAG CTAACCTCTAT TGTTTATATA AGAGAAATAC TATCAAATAA	720
TTTTATAGCA GCTATACTTG ATTTGTTAAT GATTGTGGTT TATGCTGTGG TTTTATTTAG	780
CTTTTCTAAG TACATGGTAA TCTTTTFAAT ATCACTAAGT CTAGCTCTAT CTATTGTAAT	840
GTATCCAATC ATAAAAATCT CAAAAAATTT AATTGATAAA AATATAAAAG AAAAGGTTAA	900
TGTTCAAAAT ATTACTTCCG AAGTAATTTT TAAAAATAGT GATATTAAGC TAACTGGAGA	960
AGAGGAATTT TGGATTAAAC AATGGGATAA TTTTAATACA AAACAGCTCA TCATAGGTCC	1020
AAAACCTGAT ATACATTTAT CAATTGTTAG TAGTATAACG AATGTTTTAC AAATTATTCT	1080
CCCTGTTTTG ACCCTTATTG TAGGTGTAAA TATAAAAACA TTCGAACAAT TGACGTTAAG	1140
ACAAATTGTA GCAATAAGTA CAGTCTCACC ATACTTTATT TCTCCTATAA TTTCTTTAAG	1200
TGATAACTAT ATACAATTAA TGTTATTAAA GGGATATTTT TTAAGAATAG AGGATGTGTT	1260
TAATACTAAA TCCGAATTAA TTCCAGAAAG AGTCAGTCAA GATATAAAAT TTGATAAAAA	1320
AATAGAATTA AAAGATATTT GGTATAAATA TGGATTATTT GATGATTATG TTTTGAAAGG	1380
AATAAATGTT ACTATTAAAA AAGGAGAAAC TGTTGCTATT GTTGGAAGAT CAGGTTTCAGG	1440
TAAGAGTACA TTAGCTAAAA TTTTATTAGG TTTATTAGAA CCTAATATTG GTTCAATAGA	1500
AGTTGATGGA GTAGAAAAAG AAGAAATTGG TCAAACATTG TATAGAAAGA TTTTGGGAGC	1560

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AGTGTTACAA AATTCAACCC TAAGTTATGG TACCTTAAGA GAGAATTTGA CATTTGGACA	1620
CTTTGTTTCA GATGAAGAAT TAATGACAAA TCTAAATTCA ATTGGTCTTA GCAATGTAGT	1680
TAAATCTTTA CCTCTTGGAT TAGAGACAAT CATCGCTGAA GAAGGTAATA ACTTTTCTGG	1740
AGGGCAGCAG CAAATGATAC TTTTAGCTCG TTGTCTTTTG TCGAAACCTT CGGTAGTTGT	1800
TTTGGACGAA GCAACAAGTA GTTTAGATAA TTTATCTCAA CAAATTACAA CTTCTTACTT	1860
AAGTGAAATC GGTACCACTA AGATTTTAAT TGCCCATCGA CTAGATACTA TCAAGTCTGC	1920
AGATAAGATC TTAGTAATGC ATAATGGTGA AATTGTAGAG ATTGGGACCC ATAGAGAACT	1980
TCTTGAAC TA GGAGGCATTT ATAAGCAATT GTATTCAAAT AATTAGTTTT TGATTAAAAG	2040
GGTAAATTTA TGAAGATTAT GAAAAAAAAA TATTGGACTT TAGCGATATT ATTCTTTTGT	2100
TTGTTCAATA ATTCTGTTAC TGCTCAAGAA ATACCTAAAA ATCTTGATGG CAATATAACT	2160
CACACTCAGA CTAGCGAAAG TTTTCTGAA TCTGATGAAA AACAGGTTGA CTATTCTAAT	2220
AAAAATCAAG AAGAAGTAGA CCAAAATAAA TTTCGTATTC AAATCGATAA GACAGAATTA	2280
TTTGTAACAA CAGATAAACA TTTAGAAAAA AACTGTTGTA AATTGGAAC TGAACCACAA	2340
ATAAATAACG ATATTGTTAA CTCTGAAAGT AATAATTTAC TAGGCCAAGA TAATTTAGAT	2400
AATAAAATTA AGGAAAATGT TTCTCATCTA GATAATAGAG GAGGAAATAT AGAGCATGAC	2460
AAAGATAACT TAGAATCGTC GATTGTAAGA AAATATGAAT GGGATATAGA TAAAGTTACT	2520
GGTGGAGGCG AAAGTTATAA ATTATATTCT AAAAGTAATT CTAAAGTTTC AATTGCTATT	2580
TTAGATTTCAG GAGTCGATTT ACAAATACT GGATTACTGA AAAATCTTTC AAATCACTCA	2640
AAAACTATG TCCCAATAA AGGATATTTA GGAAAAGAGG AGGGAGAGGA AGGAATAATA	2700
TCAGATATTC AAGATAGATT AGGTCATGGT ACGGCTGTTG TAGCTCAAAT TGTAGGGGAT	2760
GACAATATTA ATGGAGTAAA TCCTCACGTT AATATTAACG TCTATAGAAT ATTTGGTAAG	2820
TCGTCAGCTA GTCCAGATTG GATTGTAAAA GCAATTTTTG ATGCTGTAGA TGATGGCAAT	2880
GATATTATCA ATCTTAGTAC TGGACAATAT TTAATGATTG ATGGAGAATA TGAGGACGGA	2940
ACAAATGATT TTGAAACATT TTTGAAGTAT AAAAAGGCTA TTGATTACGC GAATCAAAAA	3000
GGAGTAATTA TAGTAGCTGC ATTAGGGAAT GACTCCCTAA ATGTATCAAA TCAGTCAGAT	3060
TTATTGAAAC TTATTAGTTC ACGCAAAAAA GTAAGAAAAC CAGGATTAGT AGTTGATGTT	3120
CCAAGTTATT TCTCATCTAC AATTTCCGTC GGAGGCATAG ATCGCTTAGG TAATTTATCA	3180
GATTTTAGCA ATAAAGGGGA TTCTGATGCA ATATATGCCG CTGCAGGCTC AACATTATCT	3240
CTTTCAGAAAT TAGGACTTAA TAACTTTATT AATGCAGAAA AATATAAAGA AGATTGGATT	3300

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TTTTCGGCAA CACTAGGAGG ATATACGTAT CTTTATGGAA ACTCATTTGC TGCTCCTAAA	3360
GTTTCTGGTG CGATTGCAAT GATTATTGAT AAATACAAAT TAAAAGATCA GCCCTATAAT	3420
TATATGTTTG TAAAAAATT CTGGAAGAAA CATTACCAGT AAAAAATGGT ATAAAAGTGT	3480
TAAATATACC AAACGTATTG AGATATGATT TGAATATGTT ACAATTAGAA TATAAAAATG	3540
AACAAAGTTG GGATAGTTTC ATAGATAATG TTAATTTAAT TGAGTTGGAA GAGAGAATTC	3600
AACTACTAT TGGAATTAAA CAAATAAACA CACACAATAT TATTACTATT GCCCGAGAAG	3660
GGTACTCTCA AAATTATTTA CCTAACACTT CAGAAAATAC ATATAATTCA TTACAAGTCA	3720
GTTTAGTTGG AGTATTACTA CTTTTTATAA GTATGGTAAA TATTTTATGG GCTAAAAAAA	3780
GTAAATGAAA ATAAAATTTG GAGCCCTCTG AAAAGTAAG TCCTACAGTT CAACTAAAAT	3840
GAGTCAAAAG ATGAATCACC TTGATGTAGG GGAGTTTGTC TTATTGCTGC CTGAACACCT	3900
CCGTTCAAGAG GAAGAACATT ATAAATCTGT TTTTGAAGAC GACTTAACCA GTCGCATATC	3960
TAGTCAAGAT GAACGACAGC AAATGACTGC TACGGTAGGT TATTTAGAAT CAGGTCAGGA	4020
TCGTTTGTG TATAATACGA CCCCTATTTT TTACCAGCAG TTTTGAAG ATCCAATCAT	4080
CATTGTTATA ACACCCCAAT CAACTGGTCC ACAGTCCATT TTGTTTGGGA TAGACGCAGT	4140
ACAGAACTAC GTTCTCTTTA ATCAATTGTC TGATGCCAG GAGCTTATCC AGAGACAAGG	4200
CATTGAAAAT TGGGTCTCAG AAATGCAAAC AGGTACCAC AACTACATCA CATTATTGGA	4260
TAATATCCAG AGGGAACGTT GGGTAATGCT AGCAGGAGCT GTGCTTGGGA TTGCAACTTC	4320
AATCTTGTG TTTAACAATA TGAATAGGCT CTACTTTGAA GAATTTAGAC GTGCCATTTT	4380
TATCAAACGC ATTGCAGGTC TCAGGTTCTT AGAAATCCAT CGCACTTATC TCTTTGCTCA	4440
ACTGGGTGTG TTTTACTGG GATTTGTTGC GAGTGTATTT CTTCAGGTAG AGATAGGAGT	4500
TGCTTTCTTA GTCTTGTTAC TCTTTACTGG TCTATCTCTT TTACAGTTAC ATGTCCAAAT	4560
GCAGAAAGAA AACAAGATGT CCATGCTTGT TTTGAAGGGA GGTAAATATG ATTGAACTTA	4620
AACAGGTGAG TAAATCTTTT GGAGAACGAG AGTTATTTTC GAATCTTTCA ATGACATTTG	4680
AGGCTGGAAA AGTCTATGCC TTAATTGGTT CAAGTGGTAG CGGAAAAACA ACCTTGATGA	4740
ACATGATTGG GAAATTAGAA CCTTATGATG GGACCATTTT TTACCGAGGT AAAGACTTGG	4800
CCAATTATAA ATCAAGTGAT TTTTCCGTC ACGAATTGGG CTACCTCTTC CAGAACTTTG	4860
GCTTAATTGA AAACCAAAGT ATTGAAGAAA ACCTTAAGCT AGGTCTCATT GGTCAAAGT	4920
TGAGTCGGTC GGAACAGCGG TTGAGGCAGA AGCAGGCTTT AGAACAGGTC GGCCTGGTTT	4980
ATCTTGACCT AGATAAGCGC ATCTTTGAGT TATCGGGCGG AGAATCGCAA CGGGTTGCCT	5040
TGGCAAAAAT TATCTTAAAG AATCCACCCT TTATTCTGGC AGATGAGCCA ACAGCTTCAA	5100

TAGACCCAGC AACCTCTCAG TTGATTATGG AGATTTTGCT ATCTCTTCGA GATGATAATA	5160
GGCTAATCAT TATCGCAACA CATAATCCGG CAATTTGGGA GATGGCTGAT GAAGTGTTC	5220
CGATGGATCA TCTGAAATAA AAATCCTTGT TTTTAATTGC ACGATGAGTT ACTGAAATAT	5280
TATCATGAAT CAAGAATTGG AGTTAATTTA GAATTGTACT TAATTTAGAA TTGTACTTTA	5340
TTAATATTGA GGTAACTTTT TCTTGATAAA GGAAGAAATA ATGGAGAGGA AGTTAGAATG	5400
AAAAAATTCG ACAATTATAT TATTGAGAAG CCTGCGATT CTAATTCAGA TAACTGCAA	5460
AAAATCTTAA TAATTGAAAG TTTGGTAGAT GATATTTTGC AATTTTCTCT CAGAATCAAT	5520
AATAGTGTAG GAGAGATTTT CCTCCTACAA CCGTTTTAAA AGAAACTAT CTTTATTCCA	5580
TGTTATTTTG AGGAAGATAT TGTGAAAGTC AAAGATGATG ATAAAGTTGA GTGGAATTTG	5640
TTAGAATTTT AAAAATTTAG AGCATTTTGG GCTTAGTAAT CTGTGTTGAA GGCTCAAAAC	5700
CTATGGTAAA AAAGTAGCTT TGAAAACGTA TTGCCTCCAA AGATTTAGTT AAATAATGAT	5760
TTAACACAAA AAGAAATTAT TGAAGTTCTG GAAAGATGTT GTTTCAGTAT TGAGAAAAGG	5820
TGGGAAAAAC TTGCGATTTT CACAGAGAAA GGAAGAAAAA GTATAGAAAT ATAGTCAATT	5880
GAAACAAGAA CAGGATAAAA GAACCTTTTG TGCCATATTT TTCTCCTTTC GCTTTACAAT	5940
TGGATTGAAC ACCTTTATTG TATCGCGTTT GGAGTTTTTT TGGTATAACC TTCGACGCAC	6000
ACCCGCATAG CGGGTGTTTT TTTTGTCTCG CACCTAACGG AGCGAGACAA ACTAATAGTC	6060
ACTTAATCAA AAAACGCACC ATATCAAAAA CTAAAAAGTT TGATATCATG CGTCATGTCT	6120
TAAACTAATT GACTATACTT TCTATTCAAA TGAGCTTTTA ACCAATTGAT TGAGCCAATC	6180
CACTCTTAAA ACCAAAGAGC AATTCTCGC TTAGCTGACT CTTCTGAATC TGAACCATGT	6240
ACAACATTTT GGATAATCTC ATTTTCTCCA GCAGCTTTTG CAAAATCACC TCGAATAGTG	6300
CCTGGTAAAG CTTCTTCTGG ACGAGTTGCA CCCATCATGG TCCGCCAAGT TTCGATTACT	6360
TTGGGACCAG AATGACACC CACAAGAACT GGACCTGAAG TCATGAATTC ACCAATCGGT	6420
GGGTAAAAAC TCTGACCAAC CAAGTCCTGA TAGTGCTGGT CAATCAACTC TTCTGAAACC	6480
TGTGAACGAA ACTCCAATTT TTCGATTGTA AATCCACGTT GTTCGATGCG CTTTAACACT	6540
TCACCCACTA GCCCTCTTTT TACACCATCT GGTTTGATGA TAAAGAATGT TTGTTCCATA	6600
CCCGTCTCCT TTGTCAGCTT CTTTCTTTTA TTFTACCACA TTTCGTGGAA AAATGGAGAA	6660
AGTTTTCAGA AGAGAGAATG AGAGAACCCT CGGGTTCTCT CATTCTCTCT TATTCTACTG	6720
TTTCTTCCAC AGTTTCAACG GCAGTATCCA CAACTACTTC TGTGTTTCT TCATTTCTTT	6780
CTTCCTCTAC TGGAGGATTA AGGTATTCTT CTTCGTTGAC AGCATGTGGT TCAAGGTTAC	6840

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GGTAACGGGC	CATACCAGTA	CCAGCTGGGA	TGATCTTACC	GATGATAACA	TTTTCTTTAA	6900
GTCCAAGGAG	ATGGTCTTTC	TTACCACGGA	TAGCTGCGTC	AGTAAGGACA	CGAGTTGTTT	6960
CCTGGAAGGA	AGCCGCTGAC	AAGAACTGT	TTGTTTCAAG	TGAGGCTTTG	GTAATTCCCA	7020
TAAGGACTGG	GCGACCTGTC	GCTGGAAGTC	CACCTGCGAT	AAGGACATCT	TTGTTGGCAT	7080
CTGTAAAGTC	ATTGATATCC	ATGAGGGTAC	CCATGAGAAG	ATCTGTATCA	CCTGGATCCA	7140
TGACACGGAC	TTTACGGATC	ATTTGACGAA	CCATTACCTC	GATGTGTTTG	TCACCGATTT	7200
CTACCCCTTG	GCTACGGTAA	ACTTTTTGTA	CTTCACCGAG	AAGGTACGTT	TCAACTGACA	7260
AGACATCACG	AACTGCAAGG	AGACGTTTTG	GTTGGATAGA	ACCTTCTGTC	AGAGCAGCAC	7320
CACGCGCTAC	TTGGCCCCCA	ACTTCGACAC	GCATACGAGC	TGTAAATGGA	ACGACATATT	7380
CACCTTCGCC	AGTTTCACCC	TTAACAAAGA	CTTCTTGGT	ACGAGTTGAT	GCATCTTCTT	7440
CGATAGCAGT	AACTTGTCCT	TTAACCTCTG	TAATAACCGC	TTCCCTTTTA	GGATTGCGGG	7500
CTTCAAAGAT	TTCTTGGA	CGAGGAAGAC	CCTGAGTGAT	ATCGGTATTT	GAGGCAACCC	7560
CACCTGTGTG	GAAGGTACGC	ATTGTAAGCT	GTGTACCAGG	TTCCCCGATA	GATTGGGCAG	7620
CGATTGTACC	AACTGCTTCA	CCAACTTCAA	CCGCATCACC	AGTCGCCAAG	TTGATACCGT	7680
AACAGTGACG	GCAGACACCG	TGACGAGTGT	TACATGTAAA	TACAGAACGG	ATAGTCACTT	7740
CTTCCACACC	AGCATTGACA	ATTTACGCG	CCTTGTCTTC	TGTAATCAAT	TCATTTGGAC	7800
CAATAATCAC	TGCACCAGTT	TCTGGATGTT	TAACAGTTTT	CTTAGTGTA	CGACCGTTGA	7860
GACGCTCTTC	GAGAGACTCG	ATCATCTCTT	TTCTTCTG	GATAGAACGG	ATCAAGAGAC	7920
CACGGTCAGT	TCCACAGTCG	TCCTCACGGA	TGATAACGTC	TTGGGCAACG	TCGACCAAAC	7980
GACGAGTCAA	GTAACCTGAG	TCGGCTGTCT	TAAGGGCCGT	ATCGGTCATA	CCTTTACGAG	8040
CACCGTGAGT	TGAGAAGAAC	ATTTCCAATA	CCGACAAACC	TTGCGGAAG	TTTGAAAGGA	8100
TTGGCAATTC	CATGATACGT	CCATTGCGAG	CAGCCATCAG	ACCACGCATA	CCGGCAAGCT	8160
GTGAGAAGTT	TGAGATGTTA	CCACGGGCTC	CAGAGTCCAT	CATCATAACG	ATTGGGTCT	8220
TAGGATCTTG	GTTAGCAATC	AAGCGTTTCT	CAAGTTTTTC	ACGGGCAGCA	CGCCATTACG	8280
CTGTAACAGC	ATTGTAACGC	TCGTCGTCTG	TGATCATACC	ACGACGGAAT	TGTTTGGTGA	8340
TTTGTTCGAC	ACGTTTGTGT	GATTCTTCAA	TGATTTACAG	CTTGTATCA	ACGACTGGGA	8400
TATCGGCAAT	ACCCACTGTC	AATCCTGCAA	GAGTTGAGTG	GTGGTAACCG	AGGTTCTTCA	8460
TGCGGTCAAG	TAGGGCAGAA	GTTTCTGTCT	TACGGAAACG	TTTGAAGATT	TCAGCGATGA	8520
TATTTCCAAG	GTTTTCTTTC	TTGAATGGAG	GGTTGAGCTC	AAGATTGCTG	ATAGCTTCCT	8580
TGATATCTCC	ACCAAGTGGC	AAGAAGTATT	TAGCTGGAAC	ACCTTCTGTC	AAGTTGGCAT	8640

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TGTTTGGTTC	TTGCAAGTAT	GGTAGCCCCT	CTGGCATGAT	ATCGTTGAAG	AGAATTTTAC	8700
CAACTGTTGT	AAGCAAGACC	TTATGTCTTT	GCTCTTCTGT	CCAAGGCTTG	TTGAGGCTGT	8760
CTGTTGCGAT	ACCAACACGT	GAGTGGAGGT	GAACATAACC	ATTGCGGTAA	GCCATAACCG	8820
CTTCGTCACG	GTCTTTGAAG	ACCATTCCCT	CACCTTCGCG	ACCAGCTTCT	TCCATGGTCA	8880
AGTAGTAGTT	ACCCAAAACC	ATGTCCTGAG	ATGGAGTAAC	TACCGGTTTC	CCATCTTTTCG	8940
GGTTCAAGAT	GTGCTCAGCA	GCTAGCATGA	GGATACGAGC	TTCTGCTTGT	GCTTCTTCTG	9000
AAAGTGGTAC	GTGGATGGCC	ATTTGGTCCC	CGTCAAAGTC	AGCATTGTAG	GCTTCACAGA	9060
CAAGTGGGTG	CAAGCGAAGA	GCCTTACCAT	CAATCAAGAC	TGGCTCGAAG	GCTTGGATAC	9120
CCAAACGGTG	AAGGGTCGGT	GCGCGGTTCA	AAAGCACTGG	GTGTTCTTTA	ATCACTTCTT	9180
CAAGGATATC	CCAGATACGC	TCATCTCCGC	GTTCCACCAA	GCGTTTAGCT	GCTTTGACGT	9240
TTTGACGAT	ATCACGGGCA	ACGATTTTAC	GCATGACAAA	TGGTTTAAAG	AGTTCAATCG	9300
CCATTTACAG	CGGCACACCA	CATTGGTACA	TCTTAAGAGT	TGGACCAACG	GCGATAACTG	9360
AACGTCCTGA	GAAGTCAACA	CGTTTACCGA	GCAAGTTTGT	ACGGAAGCGT	CCTTGTTTAC	9420
CTTTAAGCAT	GTGGCTCAAT	GATTTCAATG	GACGGCTACC	TGGTCCTGTG	ATTGGACGAC	9480
CACGACGACC	ATTGTCAATC	AAAGCGTCAA	CTGCTTCTTG	AAGCATACGC	TTCTCATTTT	9540
GAACGATGAT	ACCTGGTGCA	TTTAACTCAA	GCAAACGAGC	CAAACGGTTG	TTACGGTTGA	9600
TAACACGGCG	GTAAGGTCA	TTCAAGTCAG	ATGAGGCAAA	ACGGCCACCA	TCCAAC TGCA	9660
ACATTGGACG	AAGATCTGGT	GGGATAACCG	GAAGGATGTT	AAGAATCATC	CATTCAGGTT	9720
TGTTTCCAGA	CTTGTAAGG	GCATCCAAAA	CATCCAAACG	ACGGATGGCT	TTGACACGCT	9780
TTTGTCCAGT	AGCTGTTTTT	AATCTTCTTT	TGAGTTCAGC	AATTTCTTTT	TCAAGATCTA	9840
CTTGCTTCAA	AAGGTCTTGG	ATGGCTTCCG	CACCCATCTT	GGCAACAAAT	GAACCATAAC	9900
CATATTACAG	CAAGCGCTCT	CGGTATTTCG	GCTCTGTCAT	GATAGACTTG	TGCTCAAGTG	9960
GTGTATCCTT	AGGATCAATC	ACCACATAAG	CCGCAAAGTA	GATAACTTCC	TCGAGGGCAC	10020
GAGGGCTCAT	ATCAAGGGTC	AAGCCCATAC	GGCTTGGAAT	CCCCTTGAAG	TACCAGATGT	10080
GAGATACAGG	AGCTTTCAAT	TCGATATGTC	CCATACGCTC	ACGACGAACT	TTCGTACGCG	10140
TTACTTCAAC	CCCACAGCGG	TCACAAACAA	TTCTCTGTGA	ACGAATGCGT	TTGTACTTAC	10200
CACAAGCACA	TTCCAGTCT	TTTGTAGGAC	CAAAGATCAC	TTTATCAAAG	AGTCCTTCAC	10260
GTTCTGGTTT	CAAGGTACGA	TAATTGATTG	TTTCAGGTTT	TTTGACTTCT	CCATAAGACC	10320
ATGAACGGAC	TTTACTTGGA	GAAGCTAGGG	TGATTTGCAT	ACTTTTAAAA	CGATTTACAT	10380

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CAACCACTAT TTCTTCCCTT TCTATTCTAA GTGAACTGCT TATTCTTGTT CAGCAGCTTC	10440
TTCTGTTGCT TCCGCTTTTG TTGCTTTCTC AGCTTCTTCA GCTTCAAAGG CTGCTTTAGC	10500
CTCTTGGGCT GCTTTTTTCG GGCCTTTTTC AAGGTCATCT ACGTGGATGA CATCTTCGTC	10560
CATTCTTCA TCCAAGTCGC GAAGTTCCAC TTCTTGGTCA TCTTCGTCTA GGACACGCAT	10620
GTCAAGACCA AGAGATTGCA ATTCTTTGAC AAGAACTCGG AAGGATTCTG GAACACCTGG	10680
TTTTGGAATT GGTTCGCTT TTGTAATAGC TTCATAGGCT TTCAAACGTC CGTTGATATC	10740
GTCCGACTTG TAAGTCAAGA TTTCTTGAAG GACATTTGAC GCACCGTAGG CTTCAAGAGC	10800
CCAAACCTCC ATCTCACCGA AACGTTGTCC ACCAACTGA GCCTTACCTC CGAGTGGTTG	10860
TTGGGTAACA GTTGAGTATG GTCCGACTGA ACGCGCGTGC AATTTATCAT CAACCATGTG	10920
GTGGAGTTTG ATCATGTACA TGAATCCGAC AGAAACACGG TTATCAAACG GTTCACCAGT	10980
ACGTCCATCG TAAAGGATCG TTTTGGCATC GCTATCCATA CCTGCTTCTT TAACAGTTGA	11040
CCAAAGATCT TCAGAACTTG CTCCATCAAA GACTGGTGTA GCGATGTGAA TACCAAGAGT	11100
ACGAGCTGCC ATACCAAGGT GAAGCTCCAT AACCTGACCG ATATTCATAC GTGATGGTAC	11160
CCCAAGTGGG TTCAACATGA TGTCGACTGG AGTTCCGTCT GGAAGGTAAG GCATGTCTTC	11220
TACAGGAACG ATACGAGAGA CAACCCCTTT GTTCCCGTGA CGTCCGGCCA TTTTATCTCC	11280
GACCTTAATC TTACGTTTTT GAGCGATGTA AACACGAACC AACATGTTAA CACCTGATTG	11340
CAACTCATCT CCATTTACAC GTGTAAAGAT CTTAACATCA CGAACGACAC CATCGGCACC	11400
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CAAGAGACGT TCTTCAGCTG AAAGATCTTT CTCACCCCTTA GGTGTTACTT TACCTACAAG	11520
AATATCACCT TCTTTAACCT CAGCACCAAT ACGGATAATC CCCATTTCTG CAAGGTCTTT	11580
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CAAGCGTTCG CTCATGATAA CGGCATCCTC GAAGTTGTAA CCTTCCCAAG TCATGTAGGC	11760
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GAAATCGCCT TTTTCAACGA CATCACCAAC TTTTACGAGA GTGCGTTGGT TGTAAGCAGT	11880
ACCTGAGTTT GAACGACGGA ATTTTGGAT GTGGTAAACA TCCAATGAAC CATCTTCACG	11940
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AGGATTAATC AATGGCACAG CCTGACGTTG CATATTGGCT CCCATGAGGG CACGGTTGGA	12120
GTCATCGTTT TCCAAGAAAG GAATACATGC TGTCGCAACG GCAACTACCT GTTTTGGTGA	12180

AACGTCCATG TAGTCAACAA TATTAGCTGG ATACTCTTGG TTGACCCCTT GGTGACGTCC	12240
CATGACAATC TTCTCAGCAA AGGTTCATC TTCATTGAGA CGAGAGTTAG CCTGAGCTAC	12300
AGTATATTCA TCTTCTTCAT CAGCTGTCAA CCAAACAATT TCGTTCGTGA CAACACCTGT	12360
TTCACGGTCA ACCTTACGGT ATGGTGTTTG AACAAAACCA TATTTGTTCA AGTGTCCATA	12420
AGATGACAAG TTATTGATCA AACCGATGTT AGGTCCTTCA GGTGTCTCGA TTGGACACAT	12480
ACGACCATAG TGAGTGTAAGT GCACGTACAG TACTTCATAT CCAGCACGGT CACGAGTCAA	12540
ACCACCAGGT CCTAAGGCTG ACAAACGGCG TTTGTGAGAC AACTCAGAAA GCGGGTTGTG	12600
TTGGTCCATG AACTGTGACA ACTGTGATGA ACCAAAGAAT TCTTTAACTG CAGCTGTTAC	12660
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TTCACGGACA TTACGTTCCA TACGAGAAAG TCCCAAACGT ACTTGGTTGG CAAGCAATTC	12780
ACCAACCGCA CGGATACGAC GATTTCGAAG GTGGTCGATA TCATCTACAC GGCCAAGTCC	12840
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AGCAATAACC TTGAATTTTT GAAGAACAAC AGGCTCAGTC ACAACGGCTG CATCGTTTGG	13020
GATGTAGACA ATCTTGTTCA AGTCGCCATC CAAATGGCTT TCAATGCTTT CAATCACGCT	13080
ACGAGTCATA ATCGTACCAG CTTCTACCAA GATTTCCTCA GTTTCAGGGT CTACCAATGG	13140
CTCTGCAATG GTTTGGTTGA GCAAACGTGT TTTAACATTG AGTTTTTTAT TGATTTTGTA	13200
ACGACCAACT GCTGCCAAGT CATAACGACG TGGGTCAAAG AAGCGAGCTA CAAGCAAGCT	13260
ACGTGAGCTT TCAGCCGTCT TAGGCTCACC TGGACGAAGG CGTTCGTAAA TTTCTTTCAA	13320
GGCTTCGTCT GTACGAGAGT CCATTGGATT CTTGTGGATA TCTTTTTCAA CAGTGTGCG	13380
AACCAATTCTG CTGTCACCAA AGATATCAAA GATTTCATCA TCACCTGAGA AACCAAGAGC	13440
ACGAACCAAG GTTGTAATG GAATCTTACG AGTACGGTCG ATACGAGTGT AGGTGATATC	13500
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GCCCACCTTA CCATTTTTGT CTACTTTGTC GTTAAAGTAA ACACCTGGTG AGCGGACCAA	13620
CTGAGAAACG ATAATACGTT CACCACCATT GATGATGAAA GTACCCATTT CTGTCATGAT	13680
TGGGAAATCA CCAAAGAAAA CTTCTTGGGT CTTGATTTCTG CTTGTTTCTT TATTGATCAA	13740
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GAATGAGTCA GTTTGAATTT CAATCAAATT TGGTAAGTCA AGAACTTCTT TGATTCTTGA	13980
AAAACCTACGA CGGGTACGAT GTTTCCCGTA TTGAACGTCA TGTCTGCCA AGATGATTCT	14040
CCTTTGTAAA TAAGTTCCAA GCCTTGTCAG TCAGGCTTTT CTAATCGTCA TATGGTTGTA	14100
AACCCCTTAT CACCGTGTCC TCTTGACGAA TTTTCAGAAT CTTTAAGCCT CTGTTACAAA	14160
TGCTCAAAAT CTTGAAAAAA AGCACAAAAA GAGCAGCTAA ATCTGACTTT TTCAGAAGAT	14220
TTAACTGCTG TGAGCCTTGT CTGGACAATA TTTCAGACAA AACCTACGAC AAATGATTAC	14280
CCATATTATA CCCTATTTAG CTAGATTTTT CAAGGGGTTT CAGTAGGTTT TTGGTAAATT	14340
TTTTCCCATATA GAAAACCTGG CATCACATTC GAATCACGCT ATGGTACAAA AAACCTGAAAA	14400
AACTATTGAC TGAAAATCAT TTTCAAGGTA TAATAATAAA CGTTAAGGCG GTATAGCCAA	14460
GTGGTAAGGC ACGGCTCTGC AAAAGCTTGA TCGTCGGTTC AAATCCGTCT ACCGCCTTCT	14520
ATAACTTGAT TTATCAGGTT TCAAATGAAC AGAAAGCCCA ATTTGAAGGG CTTTTTTTAT	14580
TTTCCCTCGA ATAAATACGT ATAACCTTAA AAACCTTTGG AGCGAGTTTG TGGCAGAGTT	14640
CTTCCATGG CATAATTCCC TTTTGAAATC AG	14672

(2) INFORMATION FOR SEQ ID NO: 112:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 7902 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 112:

AGGAGACTAT TCAAGCCCAA ATTgAGTAGC CCAGCAAAGA CTGTATAGAC TGTGATACGT	60
TTTTCATAGC CATTGGTAAA GAGAATTTGG GAACCAAGAA TGGTATCTAA GGCCAGGATA	120
ATCGTACGAA AAGCGAAGAG AGAGGTCAAG ATGCCGCCCTC CGATATATTT TTCACTACCG	180
TAAAGTAGGA TGGCATTGG TCCTAAAACC ATGAGTCCAA AACTCAGTGG AATGATAAAG	240
AAGTTAAAGA TTCGACTACC TCTATTAACC AGAGAAACAT AGGCTTCTTT GTCTCCTTTC	300
CCCAGATAGT AACTGAGACG AGGCACACTC ACTCCAATTG CACCTGTTAC AACCCCAGCT	360
ATAACGGTCA CAATTCGCTG AGCTATGGTA TAGTAACTAA CGTTGACATC AATCCCTGTT	420
TTAACGAGGA AGAGGCGATC TAAAAAAGTG AAGAGCATAT TGGCATTGGC AAAGACTAAC	480
ATGGCTGTCA GAGGGAGAAA GAGTGGTTTA AAATCACTTA GGTGAATTTT AACAAGTTTG	540
ATGTCTCTTT TAATCCAAAA ATAACCTAATC AGGTAGTTAA TCAGCGTCGA TAAACTCATC	600
ACAAGTGTAT AGACAACAAT ATCGTGTTC TTTTAAACAA ATAAGAAAAT AGAGACCAGC	660

815

ATCAGGATAC GGATGAAGGC AGTTTTGTAA AAGAGAAAAC TGTAATTTTC CAGAGCTTCA	720
TTGACCCATT CGATTGAAAA AATCTGGGCA ATGAGTTGAA TCCCCATAAC AAGGTAGACC	780
TTTTTGACGA TTGGATTATC AGTAAAGAAG AGAGGATAGG CTAGGATATA GACAGCAGTG	840
GTCAAAATCG TACAAGCGAT GCACAAATAA AAAAGACTAG AAAAGGTTCT GTTAAGATCT	900
TTTTTGTAT CCTTGACATT ACTGATAGCC CTTAAACCGT AGTTATAGAC ACCATAAGTT	960
GCAAAGGGCA AGAAAAATGA CAAAATAGTG TCGACTGAGT TGAAGTAACC ATAGTCAGTT	1020
CGGTCCAAGA CACGCGCGAC ATAGGTTCCA GTTAGGATGG GAAAAATAAT ATTCAAGACA	1080
CGAATTCCCA TGTAAGATAG AGCATTTAAT TTTATACTTT TCATTCAATT TACCTCGTTT	1140
TTCATTATAT CATAAAGTTA GCTAATAAGA AATGAAGGGC AGTAAGTCAA GTAATCACTT	1200
TGAAGTTTCA AATCTTAAGT TTTAAGTTTT CTTAAGGAA AGTATATTAT TCTGAAGGAC	1260
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CATGGGGATC AGTAACTTGC CAAAACAATT TTTAGAGCTA GGTGATCGAC CTATTTTGAT	1560
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ACGTATCATC ATTACAAAGG GTGGTGCTGA CCGCAATACA AGTATTAAGA ACATCATTGA	1740
AGCCATTGAT GCTTATCGTC CGCTTACTCC AGAGGATATC GTTGTACCC ACGATTCTGT	1800
TCGTCCATTT ATTACACTTC GCATGATTCA GGACAATATC CAACTTGCCC AAAATCATGA	1860
CGCAGTGGAC ACAGTGGTAG AAGCGGTTGA TACTATCGTT GAAAGTACCA ATGGTCAATT	1920
TATTACAGAT ATTCCAAATC GTGCTCACCT TTATCAAGGA CAAACACCTC AAACATTCCG	1980
TTGCAAGGAC TTCATGGACC TTTATGGATC TCTTTCTGAT GAAGAGAAGG AAATCTTGAC	2040
AGATGCATGT AAAATCTTTG TGATCAAAGG AAAAGATGTG GCTTTGGCCA AAGGTGAATA	2100
CTCAAATCTG AAGATTACAA CCGTAACAGA TTTGAAGATT GCAAAAAGTA TGATTGAGAA	2160
AGACTAGTAA AATGATTAAT CAAATTTATC AACTAACTAA GCCTAAGTTT ATCAATGTCA	2220
AATATCAGGA AGAGGCTATT GACCAAGAGA ATCATATCCT TATCCGTCCC AACTACATGG	2280
CTGTCTGTCA TGCGGATCAG CGTACTATC AGGGAAAACG TGATCCCAAG ATTTTGAATA	2340
AAAAGCTTCC AATGGCAATG ATTCACGAGT CATGTGGAAC CGTCATTTCT GACCCGACCG	2400

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GAACCTACGA	GGTTGGTCAA	AAAGTTGTCA	TGATTCCCAA	TCAGTCTCCT	ATGCAGAGTG	2460
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GCTTTATGAG	AGAGTTTGTT	TCTCTCCCTA	AAGATCGTGT	GGTGGCTTAT	GATGCTATTG	2580
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TATTGACTCT	TGCTCATAGC	AAGCGGGAGC	GGATCGCCGT	TATTGGAGAT	GGAAGTTTAG	2700
CTTTTGTGGT	TGCCAATATT	ATCAACTATA	CTTTGCCAGA	AGCAGAGATT	GTGGTTATTG	2760
GTCGTCATTG	GGAAAAGTTG	GAACTCTTCT	CATTTGCCAA	AGAATGCTAT	ATTACGGATA	2820
ATATTCCTGA	AGATTTGGCC	TTTGACCATG	CTTTTGAATG	TTGTGGTGGT	GATGGTACTG	2880
GACCAGCTAT	TAATGACTTG	ATTGCTTACA	TTCGTCCTCA	GGGAACGATT	CTCATGATGG	2940
GAGTTAGCGA	ATATAAAGTC	AATCTCAATA	CTCGCGATGC	CTTAGAAAAG	GGCTTGATTT	3000
TGGTTGGGTC	ATCTCGTTCT	GGTCGCAATG	ATTTTGAAAA	TGCTATCCAA	ATGATGGAAG	3060
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TTAAAGATAT	TCATCGTGTC	TTTGCAACCG	ATTTAAACAC	AGCCTTTAAA	ACAGTGTMTA	3180
AGTGGGAAGT	ATAAGTACTG	GAGGTTAATT	GTGGAGAAAA	TCATTAAAGA	AAAAATTTCT	3240
TCCTTACTTA	GTCAAGAAGA	GGAAGTCCTC	AGTGTGGAAC	AACTGGGTGG	AATGACCAAT	3300
CAAACTATT	TGGCCAAAAC	AACAAATAAG	CAATACATTG	TTAAATTCTT	TGGTAAAGGG	3360
ACAGAAAAGC	TTATCAATCG	ACAAGATGAA	AAGTACAATC	TTGAACTACT	AAAGGATTTA	3420
GGCTTAGATG	TAAAAAATTA	TCTTTTTGAT	ATTGAAGCTG	GTATCAAAGT	AAATGAGTAT	3480
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CCAATATTAC	AAACTATTCA	TACGTCTGCT	AAGGAATTAA	GAGGAGAATT	TGCTCCTTTT	3600
GAAGAAATCA	AAAAATACGA	ATCCTTGATT	GAAGAACAAA	TTCCTTATGC	CAACTATGAA	3660
TCTGTTAGAA	ATGCAGTCTT	CTCCTTAGAG	AAAAGACTGG	CTGACTTAGG	TGTTGACAGA	3720
AAATCTTGTC	ATATCGATTT	GGTGCCTGAA	AACTTTATCG	AATCACCTCA	AGGACGACTT	3780
TATTTGATTG	ACTGGGAATA	TTCATCAATG	AATGATCCAA	TGTGGGATTT	GGCTGCCCTC	3840
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AAACGGAGTT	CCTTTTGGCC	TTCTCTCAGG	TATTTTCTGG	GGCTTGGGTC	TAACGGTTAG	4140
TGCTTATATC	TTTTCGATTT	TTACAGATTT	GTCACCCTTT	GTGGTGGCTG	CAACTCATGA	4200

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TATCGGTATG CAGGCCAATC TTTATGCAGT TAAGTATATC GGAAGTTCTT TAGCTTCATC	4380
TGTATCGGCT ATTTACCCTG CGATTTTCACT TCTATTGGCT TTCTTCTTTT TGAAGCACAA	4440
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AGCAAGGCAG GTCGCATCCT TAGTGGTGTA TCCTTCTGGG ATGCTCCAAC TGCAGAAAAG	5460
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AATACGGTGA AAATGTTGAT CAGGAGCTTT TGTTGGGTGA TATTGCAGAT ATCTCAGGTT	5880
GCCGTAATCC AGCCGTTTTT ATGGAACGTT ATTTTCAGAT AGACGATGCG CATTTGTCGA	5940

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AAGAGTTTCA	AAAATTTCCA	TCTTTCTCTA	TTTATAGATGA	CTGTTATCCT	TGGGATTGGA	6000
GTGAAATATA	TGATGCGCCT	GTACTTTTAT	TTTACAAGGG	AAATCTTGAC	CTCCTGAAAT	6060
TCCCGAAGGT	AGCGGTCGTG	GGCAGTCGTG	CTTGTAAGCA	ACAGGGAGCT	AAGTCAGTTG	6120
AAAAAGTCAT	TCAAGGCTTG	GAAAATGAAC	TGGTTATTGT	CAGTGGTCTG	GCCAAGGGCA	6180
TTGACACAGC	AGCTCATATG	GCAGCTCTTC	AGAATGGCGG	AAAAACCATT	GCAGTGATTG	6240
GAACAGGACT	GGATGTGTTT	TATCCTAAAAG	CCAATAAACG	CTTGCAAGAC	TACATCGGCA	6300
ATGACCATCT	GGTTCTAAGT	GAATATGGAC	CTGGTGAACA	ACCTCTGAAA	TTTCATTTTC	6360
CTGCCCCGTA	TCGCATCATT	GCTGGACTTT	GTCGTGGTGT	GATTGTAGCA	GAGGCTAAGA	6420
TGCGTTCAGG	TAGTCTCATT	ACGTGTGAGC	GAGCAATGGA	AGAAGGACGC	GATGTCTTTG	6480
CTATTCCTGG	TAGCATTTTA	GATGGACTAT	CAGACGGTTG	CCATCATTG	ATTCAAGAAG	6540
GAGCAAAATT	GGTCACCAGT	GGGCAAGATG	TTCTTGCGGA	ATTTGAATTT	TAAAAATGAC	6600
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CAAAGCAGTG	CTTTGAGCAA	CCTGTGGCTA	GCTTCCTAGT	TTGCGCTTTG	ATTTTCATTG	6900
AGTATAAGGG	AAAGTATAGT	GAATTGAAAT	AAGATGTGAA	CAACTCTATC	AGGAAAGTCA	6960
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AATGATTCCT	ACCGTCTCAA	ATCTTGTCAG	TAAGGAAAAA	TAAATTCTTC	AAAAGTAGAG	7140
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GCTCAGCTTT	GCCTTGCTGT	GTTTTGAGCA	AGCTACGGTT	AGCTTCCGAG	TTTGATTTTC	7320
ATTTACTAGA	AATGAAACTG	ATGAGAGATA	TCAGTAGACA	TTGAGTCAG	GATATTATGG	7380
AAAATGATAA	AAAGAGCTCG	TGAGATTGGC	ATATCAGACT	ACTAAAGTAT	TGAGTTTGTT	7440
AGGATTTTAG	CGACTAGTTA	GCTGGGAAAG	GAAGATATTT	GTGACAAATA	ATAAACTGTA	7500
TTGTTGATA	GAATTTAGAA	ATAAAATATA	TGAAGAATTA	GAATTTTCCA	GAAGTGATTT	7560
AGCGATTTTA	CTATGTGCCA	TGCTTATCGC	CTCTATCGGA	TTAAATATGG	ATTGACTTCC	7620
CGTGATTATT	GGAGCCATGT	TAATCTCTCC	TTTGATGACA	CCTATTCTGG	GAGTGGGGCT	7680
CTCTCTAGCT	ATATTTGATT	TTAAATTGTT	AAGAAAATCT	TTTAAAAATAT	TAGCTATTCA	7740

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AATTCTTGCC AGTCTAATAG CTTCAACACT TTATTTTAT CTTTCTCCCA TTTCGTATGC 7800
TAGTTCGGAG ATTGTTGCTA GAACCTCTCC GACTATTTGG GATGTTCTCA TTGCTTTTGT 7860
AGGAGGGATA GCAGGTATCA TTGGTGCTAG GAAAAAAGAG AC 7902

(2) INFORMATION FOR SEQ ID NO: 113:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 18627 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: double
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 113:

GAAGTTGAAA TGGCCAGCTG ATGAGCAATA TCGGTCATAG AAATCTTCTC AATCAACTTT 60
TGGCAATTT TTTGGTTGAT AATACGAGGA ATTTGGTGAT TTTTCTTGAC GATAGAAGTT 120
TCAGCGACCA TCATTTTGA ACAGTGATAG CACTTGAAAC GACGCTTCT AAGTAGAATT 180
CTAGTAGGCA TACCAGTTGT CTCAAGGTAA GGAATCTTAG ACGGTTTTTG AAAGTCATAT 240
TTCTTCAATT GGTTCGCA CTCAGGGCAA GATGGGGCGT CGTAGTCCAG TTTGGCGATG 300
ATTTCTTGT GTGTATCTT ATTGATGATG TCTAAATCT GGATATTAGG GTCTTTAATG 360
TCTAGTAATT TTGTGATAAA ATGTAATTGT TCCATATGAA TCTTCTAAT GAGTTGTTG 420
GTCGCTTTTC ATTATAGGTC ATATGGGACT TTTTCTAC AATAAATAG GCTCCATAAT 480
ATCTATAAGG GATTTACCCA CTACAAATAT TATAGAGCCA AAAATCCTT GTTTACTAAA 540
CAAGGGATTT TTCTTTGTC TCTGCTCCTT TTTTGATATA ATAGTTCTAT GTTAAATCA 600
GAAAAACAAT CACGTTATCA AATGTTAAAT GAAGAATTGT CCTTCCTATT GGAAGGCGAA 660
ACCAATGTTT TGGCTAATCT TTCCAACGCC AGTGCTCTCA TAAATCACG TTTTCCTAAT 720
ACCGTATTTG CAGGCTTTTA TTTGTTGAT GGAAAGGAAT TGGTTTATAG CCCCTTCCAA 780
GGAGGTGTTT CCTGCATCCG TATTGCACTA GGCAAGGGTG TTTGTGGTGA GGCAGCTCAC 840
TTTCAGGAAA CTGTTATTGT TGGAGATGTG ACGACCTATC TCAACTATAT TTCTTGTGAT 900
AGTCTAGCTA AAAGTGAAAT TGTGGTGCCG ATGATGAAGA ATGGTCAGTT ACTTGGAGTT 960
CTGGATCTGG ATTCTTCAGA GATTGAGGAT TACGATGCTA TGGATCCAGA TTATTTGGAA 1020
CAATTTGTCT CTATTTTGCT TGAAAAGACA GCATGGGACT TTACGATGTT TGAGGAAAAA 1080
TCTTAATGTA TCAAGCACTT TATCGAAAAT ATAGAAGTCA AAACCTCTCC CAGTTAGTTG 1140
GTCAAGAAGT TGTGGCTAAG ACTCTTAAAC AAGCGGTGGA GCAAGAGAAA ATAAGTCACG 1200

820

CTTATCTTTT	TTCTGGTCCT	CGTGGAACGG	GAAAAACCAG	TGTTGCTAAA	ATCTTTGCCA	1260
AGGCTATGAA	CTGTCCCAAT	CAAGTGGGTG	GCGAACCTTG	CAATAACTGC	TATATTTGTC	1320
AAGCAGTGAC	GGACGGTAGT	TTAGAAGATG	TCATTGAAAT	GGATGCAGCT	TCTAATAATG	1380
GGGTAGATGA	AATTCGCGAA	ATTCTGTGATA	AATCTACCTA	TGCGCCTAGC	CTTGCTCGTT	1440
ATAAGGTTTA	TATCATAGAT	GAGGTTTACA	TGCTGTCTAC	AGGGGCTTTT	AATGCCCTCC	1500
TAAAGACGCT	GGAAGAACCA	ACACAGAATG	TAGTCTTTAT	TTTGGCCACT	ACTGAATTGC	1560
ACAAGATTCC	TGCTACTATT	CTATCCCGTG	TGCAACGTTT	TGAGTTTAAA	TCAATTAAGA	1620
CACAGGATAT	TAAGGAACAT	ATTCACTATA	TCTTAGAAAA	AGAAAATATC	AGTTCTGAAC	1680
CAGAGGCTGT	GGAAATCATT	GCCAGACGGG	CGGAAGGTGG	AATGCGGGAC	GCCTTGCTTA	1740
TTTTGGATCA	AGCCCTGAGT	TTGACACAGG	GAAATGAGCT	GACGACTGCT	ATCTCTGAAG	1800
AAATTACTGG	CACCATTAGC	CTATCAGCCT	TGGATGATTA	TGTGGCGGCC	TTGTCTCAAC	1860
AGGATGTTCC	CAAAGCTTTG	TCTTGCTTGA	ATCTTCTTTT	TGACAATGGT	AAGAGCATGA	1920
CTCGTTTTGT	GACCGATCTT	TTGCACTATT	TAAGAGACTT	GTAAATTGTT	CAAACAGGGG	1980
GAGCAAATAC	TCATCATAGT	TCAGTCTTTG	TAGAAAATTT	GGCACTTCCT	CAAAAAATC	2040
TGTTTGAAAT	GATTGCTTA	GCAACAGTGA	GTTTAGCAGA	TATTAAGTCT	AGTTTGCAAC	2100
CCAAGATTTA	TGCTGAAATG	ATGACCGTCC	GTTTGCGCGA	AATCAAGTCC	GAACCAGCTC	2160
TATCAGGAGC	GGTTGAAAAT	GAAATTGCTA	CGCTGAGACA	GGAAGTTGCC	CGTCTCAAAC	2220
AAGAGCTTTC	TAATGTAGGT	GCGGTTCCCTA	AACAAGTTGC	ACCAGCTCCT	AGTCGACCAG	2280
CTACGGGCAA	AACAGTCTAT	CGTGTGATC	GCAATAAAGT	GCAATCTATC	TTACAAGAGG	2340
CCGTCGAAAA	TCCTGATTTA	GCACGTCAAA	ATTTAATTCG	TTTGCAGAAT	GCCTGGGGAG	2400
AGGTAATTGA	AAGTCTAGGT	GGGCCGGACA	AGGCTCTGCT	AGTTGGTTCT	CAACCGGTTG	2460
CTGCCAATGA	ACACCATGCT	ATTCTTGCTT	TTGAGTCTAA	CTTCAATGCT	GGTCAAACCTA	2520
TGAAACGAGA	CAATCTCAAT	ACCATGTTTG	GTAATATCCT	CAGTCAGGCG	GCAGGTTTTT	2580
CACCTGAGAT	TTTAGCTATT	TCCATGGAGG	AATGGAAGA	AGTTGCGCA	GCCTTTTCAG	2640
CCAAAGCCAA	ATCTTCTCAA	ACTGAAAAAG	AAGTAGAAGA	AAGCCTGATT	CCAGAAGGAT	2700
TTGAATTTTT	GGCTGATAAA	GTGAAGGTAG	AGGAAGACTA	AAGAAAGATT	TCATGATACA	2760
ATAAGTTTAT	GAATAAACAA	CAATTTATTA	TTATGGCGCT	GTTTACAGCT	GCTGAGACCT	2820
ATTTTTTCAA	TGAAGCCTGG	ATGACTGGCC	GCTATATTAT	GGCAGCCTTT	TGGGCAATTT	2880
TACTCTTTAG	AAATTTCCGA	GTCAGTTATG	TGATGGGCAA	AATCGTTGAT	GTCATCGATC	2940
AGCATTTTAA	TAGGAAAGAC	TAGCCCTCAG	CTTCCAGACA	AAATCAAAGC	CTTTTAGGCT	3000

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TTTTTTTGTT ATACTAGAAA AGTATATTTA TAGAATTTTT GCTCTATTTC TGGGGAAATC	3060
AGACGTTTTT CTAGTAAGTA CTGTAAAAGT TTTGAAAAAG AAAGGAACTA TCATGTCAGT	3120
ATTAGAGATC AAAGATCTTC ACGTTGAGAT TGAAGGAAAA GAAATTTTAA AAGGGGTAA	3180
CCTGACCCTG AAAACAGGAG AAATTGCCGC TATCATGGGA CCAAATGGTA CAGGTAAATC	3240
GACTCTTCT GCGCTATCA TGGGAAATCC AAATATGAA GTAATAAAG GTGAAGTTTT	3300
GTTTGATGGC GTAAACATCC TTGAGTTGGA AGTGGATGAG CGTGCGCGTA TGGGACTTTT	3360
CCTTGCTATG CAATACCCAT CAGAAATCCC TGGAAATACC AATGCTGAGT TTCTTCGTGC	3420
CGCTATGAAT GCGGGTAAAG AAGATGATGA GAAGATTTCA GTTCGTGAGT TTATTACTAA	3480
GCTAGATGAA AAAATGGAAT TGCTCAACAT GAAAGAAGAA ATGCCAGAGC GTTACCTCAA	3540
CGAAGGCTTC TCTGGTGGTG AGAAAAACG CAATGAAATT CTTCAACTTT TGATGTTGGA	3600
GCCAACATTT GCTCTTTTGG ACGAGATTGA CTCAGGTCTT GATATTGACG CTCTTAAAGT	3660
TGTGTCTAAA GGTGTCAATG CCATGCGTGG TGAAGGTTTT GGTGCTATGA TCATCACTCA	3720
CTACCAACGT CTTTTGAACT ATATCACACC TGATGTGGTA CACGTGATGA TGGAAAGGTCG	3780
TGTTGTCCTT TCTGGTGGTC CAGAATTGGC TGCGCGTTTG GAACGTGAAG GATACGCAAA	3840
ATTAGCTGAA GAACTTGGCT ACGACTACAA GGAAGAATTG TAATCCCTC GTATCTTTTA	3900
GGAGAAGTAA ATGACTAGAG AAAATATTAA ACTTTTTTCA GAAATGCACG CTGAACCAAG	3960
CTGGTTGGCT GATCTCCGTC AAAAAGCTTT TGACAAGATT GAGACTTTGG AATTACCAGT	4020
TATTGAGTGT GTCAAATTC ACCGTTGGAA TCTGGGTGAT GGAACGATTA CAGAAAATGA	4080
GCCATCAGCA AATGTTCCAG ATTTACACAGC TTTAGATCAT CACTTGAAGT TGGTGCAAGT	4140
AGGAACTCAA ACTGTTTTCG AACAACTCC AGTTGAGTTA GCTGAACAGG GTGTTGTCTT	4200
CACAGACTTT CACTCAGCTT TAGAAGAAAT TCCAGAGCTG ATCGAAGAAT TCTTCATGTC	4260
ATCTGTTAAG TATGATGATG ACAAGTTGGC GGCTTACCAC ACAGCTTACT TTAACAGTGG	4320
TGCTGTACTC TATATTCCAG ATAACGTAGA AATCACAGAG CCAATTGAAG GAATTTTCTA	4380
CCAAGATAGC GATAGCAATG TGCCGTTTAA CAAGCATATT ATGATTATCG TTGGTAAAAA	4440
TTCTAAGATT AGTTATCTGG AGCGTTTAGA GTCACGCGGT GAAGGAAGTG ACAAAGCAAC	4500
TGCCAATATC ACAGTGGAAG TGATTGCACG TTCTGGTGCG CAAGTCAAGT TTGCTGCTAT	4560
CGACCGTCTA GGTGAAAACG TCACTGCCTA CATTAGCCGT CGTGGTAAAT TAGGCAACGA	4620
TGCAAGTATT GACTGGGCTA TCGGTGTCAT GAACGAAGGA AATGTCGTTG CTGATTTTGA	4680
TAGTGACTTG ATTGGTAATG GTAGCCATGC TGACCTCAAG GTTGTAGCTC TTTCAAGTGG	4740

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TCGTCAGGTA	CAAGGGATTG	ATACTCGTGT	AACTAACTAT	GGCTGCAACT	CAATCGGAAA	4800
CATTCTACAA	CATGGGGTTA	TCCTTGAAAA	AGCAACTTTG	ACTTTCAATG	GTATCGGCCA	4860
CATCATCAAG	GGTGCTAAGG	GAGCAGATGC	GCAACAAGAG	AGCCGTGTTC	TCATGCTTTC	4920
AGACCAAGCG	CGTTCAGATG	CTAACCCAAT	TCTTTTGATT	GATGAAAATG	ACGTAAGTGC	4980
AGGCCATGCA	GCCTCTATTG	GTCAGGTAGA	TCCAGAAGAT	ATGTACTACC	TCATGAGTCG	5040
TGGCTTGGAT	AAGGCAACTG	CAGAGCGTTT	GGTGTTCGT	GGTTTCCTTG	GATCTGTTAT	5100
CGTGGAGATT	CCAGTCAAGG	AAGTTCGTGA	TGAAATGATT	GCAACTATCG	AAGAGAAATT	5160
GTCAAAACGC	TAAGGGGCAG	CCTATGTTAG	ATGTAGAAGC	GATTGCAAG	GATTTTCCAA	5220
TTTTAGATCA	GATTGTCAAT	GATGAACCTC	TGGTCTATCT	GGACAATGCT	GCGACGACAC	5280
AAAAACCACT	AGTAGTTCTG	AAAGCTATTA	ACAGCTACTA	TGAGCAGGAC	AATGCCAATG	5340
TTCACCGTGG	TGTCCATACC	TTAGCGGAAC	GAGCGACAGC	TTCTTATGAA	GCTGCTCGTG	5400
AAACCATTCT	TAAGTTTATT	AATGCAGGCT	CTACAAAGGA	AGTTCTCTTT	ACCAGAGGAA	5460
CGACAACCAG	CCTTAACTGG	GTGGCAGCT	TTGCTGAGGA	AATTCTCACT	GAGGGAGACC	5520
AGGTCTTGAT	TTCAAGTAATG	GAACACCATT	CTAATATCAT	TCCATGGCAG	GAAGCTTGTC	5580
GAAAGACTGG	AGCAGAGCTT	GTCTATGTCT	ATCTTAAAGA	CGGTGCCTTG	GATATGGAGG	5640
ATTTGCGAGC	TAAATTGACT	GATAAGGTTA	AATTGTGTTT	CCTAGCTCAT	GCCTCCAATG	5700
TTCTTGGTGT	GGTCAATCCG	ATCAAGGAAA	TCACTCAATT	AGCCCACCAA	GTTGGGGCAA	5760
TTATGGTAGT	GGATGGTGCT	CAATCTACAC	CTCATATGAA	GATTGATGTC	CAGGACTTGG	5820
ATCTGGACTT	TTTCGCCTTT	TCGGGTCACA	AGATGGCTGG	TCCGACTGGT	ATCGGTGTCC	5880
TTTACGGCAA	AGAAAAGTAT	CTTGAGCAAA	TGTCTCCAGT	AGAATTTGGC	GGCGAGATGA	5940
TTGATTTTGT	CTACGAGCAA	TTTGCTAGTT	GGAAGGAATT	GCCTTGGAAG	TTTGAGGCTG	6000
GAACGCCAAA	TATGGCAGGA	GCTATTGGAC	TTGCGACTGC	AGTTGATTAT	CTGGAAAAGA	6060
TTGGTATGGA	TGCCGTTGAA	GCTCATGAAC	AGGAATTGAT	TGCGTACGTC	TATCCAAAAC	6120
TGCAGGCAAT	TGAGGGATTG	ACCATTTACG	GTTCTCAGGA	TTTGGCTCAA	CGTTCGGGTG	6180
TTATTGCCTT	TAACCTAGGT	GATCTCCATC	CTCACGATCT	TGCGACGGCT	CTGGATTATG	6240
AAGGAGTGGC	TGTTCTGTCT	GGTCACCATT	GTGCGCAACC	CTTGCTTCAG	TATTTGGAAG	6300
TCCCAGCAAC	AGCTCGTGCA	AGTTTTTATA	TCTACAATAC	CAAGGCAGAT	TGCGACAAAC	6360
TAGTCGATGC	CCTACAAAAG	ACAAAGGAGT	TTTTCAATGG	CACTTTCTAA	ACTAGATAGC	6420
CTTTATATGG	CAGTGGTAGC	AGACCATTCT	AAAAATCCAC	ATCACCAGG	GAAGTTAGAA	6480
GATGCTGAGC	AAATCAGTCT	CAACAATCCG	ACTGTGTTGG	ATGTCATCAA	CCTCTCTGTC	6540

AAGTTTGATG CAGAGGACCG TTTGGAAGAT ATTGCTTTTC TAAATTCAGG ATGCACGATT	6600
TCAACTGCTT CTGCTAGTAT GATGACAGAT GCCGTTTTAG GAAAAACCAA ACAAGAAATT	6660
TTAGAACTGG CGACTATTTT TTCTGAAATG GTTCAAGGGC AAAAAGATGA GCGTCAAGAC	6720
CAACTTGGAG ACGCGGCATT CTTGTCAGGT GTTGCCAAAT TCCCTCAAAG AATCAAGTGT	6780
GCAACCCTAG CTTGGAATGC CCTTAAGAAA ACAATTGAAA ATCAAGAAAA ACAGTAAGAC	6840
AAGTTTCTTT TGTCTTATGA ATTATTAGAA ATGAAGAAAG AAAGGATACT ATGGCTGAAG	6900
AAAGAGTAGA ACCAAAACCA ATTGACCTTG GTGAATATAA ATTTGGTTTC CATGACGATG	6960
TAGAGCCTGT CTTATCGACA GGAAAAGGAC TCAACGAAGG TGTATTTCGT GAATTATCTG	7020
CTGCTAAGGG TGAGCCTGAG TGGATGTTGG AGTTCCGTTT GAAGTCTTAT GAAACCTTCA	7080
AAAAAATGCC CATGCAAACT TGGGGAGCAG ACTTGTGAGA GATTGACTTT GATGACTTAA	7140
TCTACTACCA AAAACCATCT GACAAACCAG CCCGTTCTTG GGATGATGTA CCTGAAAAGA	7200
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CTTCTGCCCC GTACGAGTCA GAAGTGGTTT ACCACAACAT GAAGGAAGAG TTCCAAAAAT	7320
TAGGTATTAT CTTTACAGAT ACAGATTCCG CACTCAAGGA ATACCCAGAC TTATTTAAAC	7380
AATACTTTGC GAAGTTGGTA CCGCCGACAG ATAACAAGTT GGCAGCCCTC AACTCAGCAG	7440
TATGGTCGGG TGGAACTTTT ATCTACGTGC CAAAAGGTGT CAAGGTAGAT ATTCCACTTC	7500
AAACTTATTT CCGTATCAAT AACGAAAATA TAGGTCAGTT CGAACGTACC TTGATTATCG	7560
TTGATGAGGG AGCAAGCGTC TACTACGTAG AAGGATGTAC AGCACCAACA TATTCAAGCA	7620
ATAGCTTACA CGCTGCCATT GTAGAAATTT TTGCTTTGGA CGGAGCTTAT ATGCGTTATA	7680
CAACTATCCA AAACTGGTCT GATAACGTCT ATAACCTGGT AACAAAGCGT GCTAAGGCTC	7740
AAAAGGATGC CACTGTTGAG TGGATTGATG GAAACTTGGG TGCCAAAACG ACTATGAAAT	7800
ATCCATCTGT TTACCTTGAT GGAGAAGGAG CGCGTGGTAC CATGCTCTCT ATCGCCTTTG	7860
CTAATGCAGG GCAACACCAA GACACGGGTG CTAAGATGAT TCACAATGCT CCACATACCA	7920
GCTCGTCTAT TGTGTCTAAA TCCATCGCTA AAGGTGGAGG AAAGGTTGAC TACCGTGGAC	7980
AAGTCACCTT TAACAAGAAC TCTAAGAAAT CTGTTTCCCA CATTGAATGT GATACCATTA	8040
TCATGGATGA CTTGTCAGCA TCAGATACTA TTCCATTTAA TGAAATTCAC AACTCGCAAG	8100
TGGCTTTGGA ACACGAAGCC AAAGTATCTA AGATTTTACA AGAGCAATTG TATTATCTCA	8160
TGAGCCGTGG ATTGTCAGAA TCTGAGGCAA CTGAAATGAT TGTCATGGGA TTTGTAGAAC	8220
CCTTTACAAA AGAACTTCCA ATGGAATACG CAGTTGAGCT GAACCGCTTG ATTAGCTATG	8280

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AAATGGAGGG ATCAGTTGGA TAAAATTGGA TTTTATACTC TTCGAAAATC TCTTCAAACC	8340
ACGTCAGCAT CGCCTTACCG TATGTATGGT TwCTGAeTCG TCAGTTTCAT CTACAACCTC	8400
AAAACAGTGT TTTGAGCAAC LGCGGCTAGC TTCCTAGTTT GTTCTTTGAT TTTGAGTATT	8460
AGATTTACTC AAAATCAAGG ATTTTGAAGA TGAACCTGTA TCAAAAAATC GCGGTTTAAA	8520
ATCGCGATTT TTTATAATTT CTCGTTAACA AAGCGGACAA ACTGATTCCA CCAAACTTTT	8580
AAGAAGAAGG CTTTTTCAAT TTTCTTGCTT GCTACCATTT CGAAACTAGG GCGCTCTGTG	8640
GTGATGTAAC CTTGACCAAT CAAGTCCTTG TCTTCATAAG TCAAATGGCC AACCCTGT	8700
CCAGCTTCAA GTGGTGCTGG GATTGCTTTG GAATCAGGTG TGAATTGAAC AGATTGGGAA	8760
GATTGATTCC CAACACGTTT GATTAGATAG ATATCCTCTG GAGCCACTGC AGTTACTGTA	8820
TCTTCTTTTC CATCTTGTAAC AGGGGCTTTG CTATCTTGAT AGGCATCGCC TTGTTGAACG	8880
ATTTTGCGAA GTGTAAATGT AGAAGAAATA TAATCCATTA GGGAAGATGT AGCTGTAAAT	8940
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CCTTTTTCGA CAGTAGTACC AACAAAAGAC TCTCCAGCCT TATCTGTTGT TCCTGTTTTT	9060
AGCCCATCAA AACCACCACG GTAAGCAGGC ATACCTTCTA ACATGTAGTT GGTGAAGTG	9120
ATTGTCATCC CAGCAAAAGT AGAAGAAGGT TTTTGGTGA TTTCTAAGAC TTGTGGGTAT	9180
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TCTTTTTTAG AACCTGGGTA AATGTTATCC CCTAGAGTTT CATTGTTAAG ACCTGTCGTA	9300
TTGACAACAG TGGCATCCTG AATTCCCCAT TCCAAGAGTT TTGCCCGCAT CATATCGACG	9360
AAATCTTTTT CTGAGCCAGC AATTTTCTCA GCTAGGGCAA TAGCGGCGCT GTTGGCACTA	9420
GATACCAGAG TTGCTTCAAG CAACTCTTCG ACAGTATAAT TACGGGCCTC CATAGGAATA	9480
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GAGAGGGTAA TACTTCCGTT TTCCAAAGCT TCATAGACCA GATAAACAGT AATCAATTTT	9600
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GAAGCACCCC CTAAAAGAGA GACAGTTAAC AAAGTTAAAA ATATTTTTTTT CATAGTAGTC	9780
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GAAAATATGG TAAAATAAAG TAAGGGAGGT AACTCATGTT TCGTAGAAAT AAATTATTTT	9900
TTTGGACCAC AGAAATTTTA CTCTTAACCA TCATCTTTTA CCTATGGAGA CAGATGGGGT	9960
CTTTGATTAA CCCTTTTGTT AGCGTGCTTA ATACAATTAT GATTCCATTT TTATTAGGGG	10020
GCTTTTTTTA TTATTGACA AACCCATTG TTTACTTTCTT AAATAAAGTC TGTAAACTCA	10080

825

ATCGTTTGCT	TGGTATTTTA	ATTACCTTGT	GTACTTTGGT	CTGGGGAATG	GTCATAGGTG	10140
TTGTCTATCT	CTTACCTATT	TTGATTAATC	AGTTATCTAG	TTTGATTATA	TCTAGTCAAA	10200
CTATTTATAG	TCGAGTACAA	GACTTAATCA	TAGACTTATC	TAATTATCCT	GCGCTCCAGA	10260
ATTTGGATGT	AGAAGCTACA	ATTCAGCAGT	TAAACTTATC	CTATGTTGAT	ATTCTTCAAA	10320
ATATCCTAAA	TAGCGTATCA	AATAGTGTGG	GGAGCGTCTT	GTCAGCTCTT	ATCAGTACTG	10380
TTTTGATTTT	GATTATGACT	CCAGTTTTTT	TGGTTTATTT	CTTATTAGAT	GGACATAAAT	10440
TCTTGCCCAT	GCTTGAAAGA	ACGATTCTAA	AGAGGGATCG	CTTGCATATT	GCAGGCTTAT	10500
TAAAGAATTT	AAATGCCACG	ATTGCTCGCT	ATATTAGTGG	AGTTTCGATT	GACGCAATCA	10560
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TTGCCATTTT	TTCTGGTGTA	GCCAATTTAA	TTCTTATGT	GGGGCCAAGT	ATTGGTTTGA	10680
TTCTTATGAT	CATCGCAAAT	ATATTCACCTG	ATCCCCATAG	ACTGCTGATT	GCAGTGATTT	10740
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TTATGAAGGT	TCATCCAATC	ACGATTTTAG	TTTTACTTTT	GTTGTCAAGC	AATATCTATG	10860
GTGTAGTTGG	AATGATTGTC	GCAGTGCCAA	CCTATTCTAT	CTTGAAAGAA	ATTTCTAAGT	10920
TCTTATCCCA	TTTGTATGAA	AATCATAAAA	TAATGAAAGA	ACGAGAAAGA	GAATTAGCTA	10980
AGTAAAAGTC	AGGAGAACCC	TGATTTTTCT	TTACTGGAAG	TGGCCTTTAG	ATTAGAAGAC	11040
TGAAAATAAG	TTAAAGTCTT	AAACTAATTT	TCACAGCTAA	GAATAGTAGA	AGTTAATCTG	11100
ATAAAATCG	AAAAAACCAG	TGGAATTCTG	TGTCAGGGTA	AGTTCCACTG	GTTTTCATAG	11160
TCTATTAAAG	TTCGAATGAA	ACCTATTTAT	AGTAGATTGA	AACTAGAATA	GTACACCTCT	11220
AATTCTAAAA	CATTGTTAGA	AATCGATTTG	ACTGTCCTGA	TCTATTCGTT	CTATTCTTAT	11280
TTCAATTTAC	TATATTTTGG	TGCAATAAGT	GAAAAGTAGT	CCGAATAATA	TAAGGATTGA	11340
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ATGTGATTTT	TTTTTGCAAT	TTTGAGTTAG	ATAAGGTATA	ATGATTTTAT	TGTCTTTTGG	11520
GGTCGTTACG	GATTCGACAG	GCATTATGAG	GCATATTTTG	CGACTCGTGT	GGCGACGTAA	11580
ACGCTCAGTT	AAATATAACT	GCAAAAAATA	ACACTTCTTA	CGCTCTAGCT	GCCTAAAAAC	11640
CAGCAGGCGT	GACCCGATTT	GGATTGCTCG	TGTTCAATGA	CAGGTCTTAT	TATTAGCGAG	11700
ATACGATTAA	GCCTTGCTTA	GCGGTTTGAT	AAGAGATTGA	TAGACTCGCA	GTTTCTAGAC	11760
TTGAGTTATG	TGTCGAGGGG	CTGTTAAAAAT	AATACATAAC	CTATGGTTGT	AGACAAATAT	11820

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GTTGGCAGGT	GTTTGGACGT	GGGTTCGACT	CCCACCGGCT	CCATTATTCC	TTTGCATTCT	11880
TTTGCATTCC	TTGGTAAAAC	GTTGTTAAAT	CAACGTTTTT	TATTTTATC	TTTGGTATTC	11940
CTTTGCATTTC	TTTTGCTAAA	AAGGGAGTCA	CAAACAGACC	CTATTTTAAA	AAAGGATAGA	12000
AAAAAGGATA	CAACATTTGT	CGCATCCTAA	AAATAATCTT	TTTTCGACGG	AAGACATGGG	12060
ATTCGAACCC	ACGCACGCTA	TTACACGCCT	ACCGCGTTTC	CAACACGGCC	TCTTAAGCCT	12120
CTTGAGTAAT	CTTCCAATAC	TTACTCAAAT	AGTCTACCAT	AAAGGCTCTT	ATCTTGCAAT	12180
AAAAATTCTA	GAAATAAGAA	AAATGATAGA	TTTTGAAAGA	AAATGATAAA	AAATGCTTGA	12240
CTTCGAAAGA	AAGTATGATA	GAATGAATAG	TGTAAACGAT	AACAGGAGGT	GATTCAGTGT	12300
TAAAAACAGA	ACGTAAACAA	CTAATTTTAG	AGGAGTTAAA	TCAACATCAT	GTAAGTTTCTC	12360
TAGAAAAATT	AGTTAGTTTG	CTAGAAACGT	CAGAATCAAC	GGTTCGAAGA	GACTTGGATG	12420
AGTTGGAAGC	GGAAAAACAAG	CTTCGTCGTG	TGCATGGTGG	AGCAGAACTC	CCCTACTCCT	12480
TACAGGAAGA	AGAAACCATT	CAAGAAAAAT	CTGTCAAAAA	CCTTCAAGAA	AAGAAATTGC	12540
TGGCTCAGAA	AGCAGCCTCT	CTCATTAAAG	AAAAAGATGT	CATCTTTATC	GATGCTGGAA	12600
CAACAACCTGC	TTTTTTGATT	CATGAATTGG	TCAATAAGAA	TGTTACAGTT	GTGACCAACT	12660
CCATTACCA	TGCCGCTCAG	TTGGTTGAAA	AGCAGAWTCC	AACTGTCATG	GTTGGAGGAA	12720
ACGTCAAGAC	GGCGACAGAT	GCTAGTATCG	GGGGCGTTGC	TCTTAACCAG	ATTAACCAAT	12780
TGCACTTTGA	CCGTGCCTTT	ATCGGAATAA	ATGGTGTGTA	CGATGGCTAT	TATACGACTC	12840
CTGATATGGA	GGAGGGAGCT	GTGAAAAGAG	CTATTTTGGA	GAATGCCAAG	CAGACCTACG	12900
TCTTGGTGGA	TTCTGCAAAA	ATTGGACAAA	CTTGCTTTGC	CAAGGTAGCC	CCACTCAAAC	12960
GCGCTATCGT	TATCACTAGT	CAAGGGCATG	AGCTCTTGCA	GGTTATTAAG	GAGAAAACGG	13020
AGGTAATAGA	AGTATGATTT	ATACAGTCAC	ACTCAATCCA	TCCATTGACT	ATATCGTTCC	13080
TTTGGACCAA	GTCAAAGTTG	GTAAGTGTCA	TCGTATGGAC	AGTGATGATA	AGTTTGCTGG	13140
TGGGAAAGGA	ATCAATGTCA	GCCGTGTCTT	GAAACGTTTG	AATATACCAA	ATACAGCGAC	13200
GGGATTTATC	GGTGGCTTTA	CTGGTAAATT	TATCACAGAT	ACTTTAGCAG	AGGAAGAAAT	13260
CGAGACACGT	TTTGTCCAGG	TGGCAGAAGA	TACTCGTATC	AATGTTAAAA	TCAAAGCAGA	13320
CCAAGAAACA	GAAATCAACG	GAACGGGTCC	AACTGTTGAA	TCCGTTTCAGC	TAGAAGAATT	13380
GAAAGCTATT	TTATCTAGTC	TGACAGCAGA	AGATACAGTT	GTCTTTGCAG	GTTCAAGTGC	13440
TAAAAATCTA	GGCAATGTTA	TCTATAAGGA	TTTGATTTCC	TTGACGCGCC	AGACTGGTGC	13500
GCAAGTGGTC	TGTGACTTTG	AAGGACAGAC	CTTAATTGAT	AGTTTGGACT	ACCAGCCTCT	13560
TCTTGTAATA	CCAAACAATC	ATGAACTTGG	AGCGATTTTT	GGGGTTAAAC	TCGAAAGTTT	13620

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AGATGAAATT GAGAAATACG CTCGTGAGTT ACTGGCTAAG GGTGCTCAAA ATGTTATTAT	13680
CTCTATGGCT GGTGATGGTG CCCTTCTTGT CACATCTGAG GGAGCTTACT TCGCTAAACC	13740
AATCAAAGGA ACAGTCAAAA ATTCAGTTGG AGCTGGTGAT TCTATGGTTG CTGGATTAC	13800
AGGTGAATTT GTCAAATCAA AAGACGTAGT AGAAGCCTTC AAATGGGGAG TGGCTTGCGG	13860
AACGGCAACT ACCTTCTCAG ATGACTTGGC AACGGCGGAA TTTATTAAAG AAACATATGG	13920
AAAAGTTGAG GTAGAAAAAC GATGAAAATT CAAGACCTAT TGAGAAAAGA TGTGATGTTG	13980
CTAGATTTGC AGGCAACTGA AAAACAGCT GTCATCGACG AGATGATTAA AAATTTGACA	14040
GACCACGGTT ATGTAACAGA TTTTGAAACA TTAAAGAAG GAATTTTGGC GCGTGAAGCT	14100
TTGACTTCTA CTGGTTTGGG TGATGGAATC GCAATGCCTC ACAGCAAAAA CGCTGCTGTC	14160
AAAGAAGCGA CAGTTCTATT TGCTAAGTCA AATAAGGGTG TTGACTACGA GAGCTTGGAT	14220
GGACAAGCAA CTGACCTCTT CTTGATGATT GCAGCTCCAG AAGGTGCCAA TGATACTCAC	14280
TTGGCAGCCT TGGCAGAATT GTCTCAATAC TTGATGAAAG ACGGTTTTGC AGACAAACTT	14340
CGTCAAGCAA CATCTGCAGA CCAAGTTATC GAACTTTTTG ACCAAGCTTC AGAAAAAACT	14400
GAGGAACTTG TTCAAGCACC TGCTAATGAC TCTGGTGACT TTATCGTAGC TGTTACAGCT	14460
TGTACAACAG GTATTGCCCA CACTTACATG GCCCAAGAAG CCCTTCAAAA AGTAGCTGCT	14520
GAAATGGGGG TTGGTATCAA GGTGCAAAACC AACGGTGCTA GCGGTGTTGG AAATCAACTA	14580
ACTGCAGAAG ATATCCGTAA GGCTAAAGCT ATTATCATTG CAGCAGACAA GGCCGTTGAA	14640
ATGGATCGAT TTGATGAAA ACCATTGATC AATCGTCCAG TTGCTGACGG TATCCGTAAG	14700
ACAGAAGAGC TAATTAACCT GGCTCTTTCA GGAGATACTG AAGTCTACCG TGCCGCTAAT	14760
GGTGCCAAAG CTGCAACAGC CTCTAACGAA AAACAAAGCC TTGGTGGTGC CTTGTACAAA	14820
CACTTGATGA GTGGTGTATC TCAAATGTTA CCATTCGTTA TCGGTGGTGG TATCATGATT	14880
GCCCTTGCCT TCTTGATTGA CGGTGCTTTG GGTGTTCCAA ATGAAAACCT TGGCAATCTT	14940
GGTTCTTACC ATGAGTTAGC TTCTATGTTT ATGAAAATTG GTGGAGCTGC CTTTGGTTTG	15000
ATGCTTCCAG TCTTTGCGGG TTATGTTGCC TACTCTATTG CTGAAAAACC GGGTTTGGTA	15060
GCAGGTTTCG TGGCTGGTGC TATTGCCAAA GAAGGTTTTG CCTTTGGTAA AATTCCTTAT	15120
GCCGCAGGTG GTGAAGCAAC TTCAACTCTT GCAGGTGTCT CATCTGGTTT CCTAGGTGCC	15180
CTTGTGGTG GATTTATCGC AGGTGCCTTG GTTCTTGCCA TCAAGAAATA CGTTAAAGTT	15240
CCTCGTTCAC TCGAAGGTGC TAAATCAATC CTTCTATTGC CACTTCTTGG AACAACTTG	15300
ACAGGATTTG TTATGCTAGC TGTGAATATC CCAATGGCTG CAATCAACAC TGCTATGAAT	15360

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GACTTCCTAG	GCGGTCCTGG	AGGAGGTTCA	GCTGTCCTTC	TTGGTATCGT	CCTTGGTGGA	15420
ATGATGGCTG	TTGACATGGG	TGGACCAGTT	AATAAAGCAG	CTTATGTCTT	TGGTACAGGT	15480
ACGCTTGCAG	CAACTGTTTC	TTCAGGTGGT	TCTGTAGCCA	TGGCAGCAGT	TATGGCTGGA	15540
GGAATGGTGC	CACCACTTGC	AATCTTTGTC	GCAACTCTTC	TTTTCAAAGA	TAAATTTACT	15600
AAGGAAGAAC	GTAACCTCTG	TTTGACAAAC	ATCATCATGG	GCTTGTCAAT	TATCACTGAG	15660
GGAGCGATTC	CATTTGGTGC	CGCTGACCCA	GCTCGTGCGA	TTCCAAGCTT	CATCCTTGGT	15720
TCAGCAGTAG	CAGGTGGACT	CGTTGGTCTT	ACTGGTATCA	AACTCATGGC	GCCACACGGA	15780
GGAATCTTCG	TTATCGCCCT	TACTTCAAAT	GCTCTCCTTT	ACCTCGTTTC	TGTCTTGGA	15840
GGAGCAATCG	TAAGTGGTGT	GGTTTATGGT	TACCTACGCA	AACCACAAGC	ATAAAAAATA	15900
GAAAAATGAA	AAGATTGGAC	CGTTTGGTGC	AGTCTTTTTT	TCTTCCCGAA	ATGCCTGTGA	15960
AATATGGTAT	AATAGAAGAA	TGGCAAACAA	GAATACAAGT	ACAACAAGAC	GGAGACCGTC	16020
TAAAGCAGAA	CTGGAAAGAA	AAGAAGCGAT	TCAACGAATG	TTGATTTCGT	TAGGAATTGC	16080
GATTTTATTG	ATTTTCGCAG	CCTTCAAATT	AGGGGCTGCA	GGTATAACCC	TTTATAATTT	16140
AATTCGCTTG	CTAGTGGGTA	GCCTAGCTTA	TCTGGCGATA	TTCCGGCCTAT	TAATCTATCT	16200
CTTCTTTTTT	AAGTGGATAC	GAAAACAGGA	AGGACTCTTA	TCTGGCTTTT	TCACCATATT	16260
TGCTGGCTTA	CTCTTGATTT	TTGAGGCCTA	CTTGGTTTGG	AAATATGGTT	TGGACAAGTC	16320
CGTTCTAAAA	GGGACCATGG	CTCAGGTTGT	GACAGATCTG	ACTGGTTTTC	GAACGACTAG	16380
CTTTGCTGGA	GGGGGCTTGA	TCGGGGTCGC	TCTTTATATT	CCAACAGCCT	TTCTCTTTTC	16440
AAATATCGGA	ACTTACTTTA	TTGGTTCTAT	CTTGATTTTA	GTGGGTTCTC	TCCTAGTCAG	16500
CCCTTGGTCT	GTTTACGATA	TTGCTGAATT	TTTCAGTAGA	GGCTTTGCCA	AATGGTGGGA	16560
AGGGCACGAG	CGTCGAAAAG	AGGAACGCTT	TGTCAAACAA	GAAGAAAAAG	CTCGCCAAAA	16620
GGCTGAGAAA	GAGGCTAGAT	TAGAACAAGA	AGAGACTGAA	AAAGCCTTAC	TCGATTTGCC	16680
TCCTGTTGAT	ATGGAAACGG	GTGAAATTCT	GACAGAGGAA	GCTGTTCAAA	ATCTTCCACC	16740
TATTCAGAA	GAAAAGTGGG	TGGAACCAGA	AATCATCCTG	CCTCAAGCTG	AACTTAAATT	16800
CCCTGAACAG	GAAGATGACT	CAGATGACGA	AGATGTTTCT	GTCGATTTTT	CAGCCAAAGA	16860
AGCCCTTGAA	TACAACTTTC	CAAGCTTACA	ACTCTTTGCA	CCAGATAAAC	CAAAAGATCA	16920
GTCTAAAGAG	AAGAAAATTG	TCAGAGAAAA	TATCAAAATC	TTAGAAGCAA	CCTTTGCTAG	16980
CTTTGCTATT	AAGGTAACAG	TTGAACGGGC	CGAAATTGGG	CCATCAGTGA	CCAAGTATGA	17040
AGTCAAGCCG	GCTGTTGGTG	TAAGGGTCAA	CCGCATTTCC	AATCTATCAG	ATGACCTCGC	17100
TCTAGCCTTG	GCTGCCAAAG	ATGTCCGGAT	TGAAGCACCA	ATCCCTGGGA	AATCCCTAAT	17160

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CGGAATTGAA GTGCCCAACT CCGATATTGC CACTGTATCT TTCCGAGAAC TATGGGAACA	17220
ATCGCAAACG AAAGCAGAAA ATTTCTTGGA AATTCCTTTA GGAAGGCTG TTAATGGAAC	17280
CGCAAGAGCT TTTGACCTTT CTAAAATGCC CCACTTGCTA GTTGCAGGTT CAACGGGTTC	17340
AGGGAAGTCA GTAGCAGTTA ACGGCATTAT TGCTAGCATT CTCATGAAGG CGAGACCAGA	17400
TCAAGTTAAA TTTATGATGG TCGATCCCAA GATGGTTGAG TTATCTGTTT ACAATGATAT	17460
TCCCCACCTC TTGATTCCAG TCGTGACCAA TCCACGCAA GCCAGCAAGG CTCTGCAAAA	17520
GTTGTGGAT GAAATGAAA ACCGTTATGA ACTCTTTGCC AAGGTGGGAG TTCGGAATAT	17580
TGCAGGTTTT AATGCCAAGG TAGAAGAGTT CAATCCCAG TCTGAGTACA AGCAAATTC	17640
GCTACCATT CATTGTCGTGA TTGTGGATGA GTTGGCTGAC CTCATGATGG TGGCCAGCAA	17700
GGAAGTGGA GATGCTATCA TCCGTCTTGG GCAGAAGGCG CGTGCTGCAG GTATCCACAT	17760
GATTCTTGCA ACTCAGCGTC CATCTGTTGA TGTCATCTCT GGTTTGATTA AGGCCAATGT	17820
TCCATCTCGT GTAGCATTTG CGGTTTCATC AGGAACAGAC TCCCGTACGA TTTTGGATGA	17880
AAATGGAGCA GAAAACTTC TTGGTCGAGG AGACATGCTC TTAAACCGA TTGATGAAAA	17940
TCATCCAGTT CGTCTCCAAG GCTCCTTTAT CTCGGATGAC GATGTTGAGC GCATTGTGAA	18000
CTTCATCAAG ACTCAGGCAG ATGCAGACTA CGATGAGAGT TTTGATCCAG GTGAGGTTTC	18060
TGAAAATGAA GGAGAATTTT CGGATGGAGA TGCTGGTGGT GATCCGCTTT TTGAAGAAGC	18120
TAAGTCTTTG GTTATCGAAA CACAGAAAGC CAGTGCGTCT ATGATTTCAGC GTCGTTTATC	18180
AGTTGGATTT AACCGTGCGA CCCGTCTCAT GGAAGAACTG GAGATAGCAG GTGTCATCGG	18240
TCCAGCTGAA GGTACCAAAC CTCGAAAAGT GTTACAACAA TAAAAAATA GCTTCTTTCC	18300
AAGTTTGGAG GGAAGCTATT TTAGTGGCTA TTGATTGCTT TTATTTTCTG AAGTTGGCGC	18360
ATTGGACTGT TTTTCGTTTT CAGTAGCAGG TTTACTTGAA GCAGGAGTAG AAGAGTCCTG	18420
AGTTGCTGTT TTCTGATCTT CTTTTTCTC TTCCTTGACG CTAGATTTTG GTGTTTCCTC	18480
TTGCTGTGTT TTTCTTGAC TAGTGTTAGT CTCTTAGTT GGACTGGTGT TTTCTTAGG	18540
GGATTCCTTT TGGATTCTT TGACAATGGT TGTCGTCTGG CTTGTCGTAG GTTCTTTTTT	18600
AATATTTTGT TTATTATCCA AGGCGTT	18627

(2) INFORMATION FOR SEQ ID NO: 114:

- (i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 2560 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 114:

TAAAATACGT TACCTTGCTT CTGCACGTTT AGCAGGTAAG TCATTGAAAT TTAAAGATCA	60
AGATATTACA ATTGAAGAAA CGACTGAAAC AGCTTTTGAA GGAGTTGATA TTGCTCTCTT	120
TTCAGCAGGT AGTTCTACAT CAGCTAAGTA TGCACCATAC GCAGTAAAAG CTGGCGTGGT	180
AGTAGTAGAT AATACATCTT ATTTCCGTCA AAATCCAGAT GTTCTTTTGG TTGTTCCAGA	240
GGTCAATGCT CATGCACTTG ATGCTCACAA CGGAATCATT GCCTGCCCTA ATTGTTCAAC	300
AATTCAAATG ATGGTGGCTC TTGAGCCGGT TCGCCAAAAA TGGGGCTTGG ACCGTATCAT	360
TGTTTCAACT TATCAAGCCG TTTCAGGTGC TGGTATGGGA GCAATTCTTG AGACACAACG	420
TGAACTTCGT GAAGTCTTGA ATGATGGTGT GAAACCACGT GATTTGCATG CGGAAATCTT	480
GCCTTCAGGT GGTGACAAGA AACATTATCC TATCGCCTTT AACGCTCTTC CACAAATTGA	540
TGTTTTCACT GATAATGATT ACACGTACGA AGAGATGAAG ATGACCAAGG AACTAAGAA	600
AATTATGGAA GATGATAGCA TTGCAGTATC TGCAACATGT GTGCGTATTC CAGTCTTGTC	660
AGCTCACTCT GAGTCTGTTT ATATCGAAAC AAAAGAAGTG GCTCCAATCG AAGAAGTAAA	720
AGCAGCTATC GCAGCCTTCC CAGGTGCTGT TCTTGAAGAT GATGTAGCTC ATCAAATCTA	780
TCCTCAAGCT ATCAATGCAG TTGGTTCGCG TGATACCTTT GTTGGTCGTA TCCGTAAAGA	840
CTTGGATGCA GAAAAAGGAA TTCACATGTG GGTGTTTTCA GATAACCTTC TCAAAGGTGC	900
TGCTTGGAAC TCAGTTCAGA TTGCTGAAAC TCTTCATGAA CGTGGATTGG TTCGTCCAAC	960
AGCCGAATTG AAATTTGAAT TAAATAGTC ATATCGTTTA GGAGTTCAGA TGAATCCTT	1020
CTTTGAAATA GAGAGGTGTT TTCGTGTCTT ATCAAGATTT AAAAAAATGT AAAATCATT	1080
CAGCCTTTAT TACCCCTTC CATGAGGATG GTTCCATTAA CTTTGATGCT ATTCCAGCCT	1140
TGATTGAGCA TTTATTTGGC CATCATACGG ATGGAATTCT TCTCGCAGGA ACGACTGCTG	1200
AGAGTCCAAC TTTGACCCAC GATGAGGAGT TGGAGTTGTT TCGGGCTGTA CAAAAGGTT;	1260
TCAATGGACG CGTTCCTTTG ATTGCGGGTG TAGGTACTAA TGATACGCGT GACTCTATTG	1320
AGTTTGTCAA AGAAGTAGCG GAATTTGGTG GTTTCGCAGC TGGGCTTGCT ATTGTTCTT	1380
ACTACAACAA ACCTTCTCAA GAAGGGATGT ATCAGCACTT TAAGACTATT GCAGATGCTT	1440
CTGACCTACC AATTATTATC TATAACATTC CAGGGCGTGT AGTTGTGCGA TTGACTCCAG	1500
AAACCATGCT TCGCTTGGCT GACCATCCAA ATATTATCGG TGTCAAAGAA TGTACTAGCT	1560
TGGCTAATAT GGCTTACTTG ATTGAGCACA AGCCTGAAGA GTTCTTGATT TATACAGGTG	1620
AGGATGGAGA TGCTTTCCAT GCCATGAACC TTGGGGCGGA TGGGGTTATT TCTGTTGCCT	1680

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CTCATACAAA TGGGGATGAA ATGCACGAGA TGTTTACTGC GATTGCAGAA AGCGATATGA	1740
AGAAAGCCGC AGCAATTCAG CGTAAATTCA TTCCTAAGGT TAATGCTCTC TTCTCTTATC	1800
CAAGTCCTGC TCCAGTTAAG GCAATTCTTA ACTATATGGG ATTTGAAGCT GGACCCACTC	1860
GTCTACCTCT TGTTCCAGCA CCAGAAGAAG ATGCCAAACG CATTATCAAG GTTGTCTAG	1920
ATGGCGACTA CGAAGCAACT AAGGCAACTG TAACAGGGGT CTTAAGACCA GATTACTAAT	1980
AAAGACAATA AAATCCGGCT CTTTGTCAAC TGTAGTGGGT TGAAGTCAGC TAAGCTCGAG	2040
AAAGGACAAA TTTTGTCTT TCTTTTTTGA TATTCAGAGC GATAAAAATC CGTTTTTTGA	2100
AGTTTTCAAA GTTCCGAAAA CCAAAGGCAT TCGCTTGAT AAGTTTGATG AGATTATGG	2160
TCGCTTCCAA TTTGGCGTTT GAATAGGGTA GTGAAGGGT GTTGACGATT TTCTTTTGT	2220
CCTTTAGAAA GGTTTTAAAG ACAGTCTGAA AAATAGGATG AACCTGCTTC AGATTGTCCT	2280
CAATGAGTCC GAAAAATTC TCCGGTTCCT TATTCTGAAA GTGAAACAGC AAGAGTTGAT	2340
AGAGCTGATA GTGATGTTT AAGTTTGTG AATAGCTCAA AAGCTTGTTT AAAATCTCTT	2400
TATTGGTTAA GTGCATACGA AAGTAGGAC GATAAAATCG CTTATCACTC AGTTTACGGC	2460
TATCCTGTTG AATGAGTTT CAGTAGCGCT TGATAGCCTT GTATTGGGA TTTTCGATGA	2520
AACTGATTCA TGATTGGAC ACGCACACGA CTCATAGCAC	2560

(2) INFORMATION FOR SEQ ID NO: 115:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 11303 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: double
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 115:

TATTGGATTT CCCTTGCAAT CAGTTTATGG GACAAGCACC CGGCAGCGCA GAGGAAATCA	60
ACGCCTTCTG TAGCCTACAT TTTCAAACCA CCTTCCCACG TTTTGCCAAG ATTAAGGTCA	120
ACGGTAAGGA AGCAGACCCT CTCTATGTCT GGTACAAGA CCAGAAATCC GGCCCACTAG	180
GAAAACGAGT CGAATGGAAT TTCGCTAAGT TTCTCATCGG TCGAGATGGG CAAGTCTTTG	240
AACGCTTTTC TTCAAAAACA GACCCAAAAC AAATTGAAGA GGCGATACAA ACTCTACTAT	300
AATTCACAAT CTCCTATGA TTAGGTTTCC TTAACTGA TGAATAGTGA GATTTTTTGA	360
TGGGCTTTGA CTAAATAGA AAAACACCCC ATGATATGAA ACATGAAGTG TTGTAAAGTC	420
TATGTTGTAG GTGCTTATTT CACAATTCA ATGTGACCAG TGATAACGAA TACCATACAG	480

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AATCTTCATA	TACACTAAAC	AAATGACTTT	CTAATTATTT	CAATTAGTTT	TGGCTAGTAA	540
ATATCATTTT	CAACAAACGC	CCTCTCAATT	CCTTATCCTG	ATGATGCAAG	ATATTCATTA	600
AGTCATGAGA	GTTTTTCGCA	TGATGAATT	GATTTAACAA	TCTATCTTTT	AATTCATATG	660
GAAGAGAAGC	TGTCTTTAGT	AGTCTAAAAA	CTTCGTCATT	TAAAGATGTC	CTTTTATTAT	720
CTTTCCATT	AAATTTAGCT	GTATCATTTCT	TATTTGGCAA	TTCAATTATA	GACACATTCG	780
TTCTTTTAAA	ATGAATTCTA	TGTTTTCTAT	TGCTTGGAAC	GATACTAGAA	TCTCCTTGTA	840
ATGCTAACTC	TACCATTTCC	ATTTCCCAAT	CGATTGATAA	TCTTGTTTTA	TATCTTTGAC	900
CATTTTGATC	TTCAAGCATT	TCAAAAGAAT	GTTGTTTTCC	TGGGAATACA	TACCAATCTA	960
CAACTTCAGG	TAAATCAACA	CCCATACCTA	TCTCAGAACC	AACCAAGGGA	ATGATTGCAC	1020
CACTTTTTGC	AAACACAGGC	GATGTCGAGA	TGTCCCTATA	AACACTTAAC	TTACACCCAC	1080
CTGTGTATTT	TTTCTCTGAA	AAGAAGTCAT	ACCATTCACC	TTCAGGGAAC	CATACATCTA	1140
CTTTTGACAG	TTGGAATGTC	AAATCCATCT	TTTCTACAAT	GGGAGCCACC	ATCAGTTCTG	1200
TTCCAAAAAA	GTATTGGTTT	GGAACATTAT	AGCTCTCATC	ATTCTCTGGA	TAGAAATAAT	1260
AGATTGGACT	GATTAATGGG	GCACCTTCCT	CATGTGTCTG	TACATTCATG	GTATATAGAT	1320
AGGGAATCAT	CTGATGTCTC	AAACGAAGGT	ATTTCTTCAT	AATCTTAGAT	GTTGTTTCTG	1380
AAAAAAACCA	AGGTTCTTTA	CTATTAAAAG	GACTTCTAGA	ACTATGTAAT	CGAGTAATCG	1440
GACTAAAAAC	ACCAAACGT	AGCCATCTAG	TTTGTAGCTC	TTGTCATAA	TCCCCCAACA	1500
TATGTCCACC	GATATCATGA	CTCCACCAAC	TATAACCGAT	ATTAGATGCT	GTCGCTGTAA	1560
AATAGGGTTG	AAATCTTAAG	GAATTCCAAC	TAATAATAGT	ATCCCCTGAA	AAACCAACAG	1620
GGTAGCGGTG	ACTACCAGGA	CCTGCATATC	TTGATAAAAT	CAAACCACCT	TCTGCATTTT	1680
TACAACTATC	CTGATAGTGA	TAATGGTTTA	AAAGCCAAAG	TGGATCTAGC	ATACCTTGTG	1740
TCCCTTGTTG	CCAGTCAATC	CACCAAAAAAT	CTACTCCCTG	CTTTTCTAGT	TCATAATGAA	1800
CATCTTTAAA	GTAGGCTTCC	CTAAAAGAGG	GATTAAAAAA	ATCAAAAATA	GCAGGTTCTT	1860
CTAGTTCTAC	ATTTAACCCC	AACCGTTTGT	CGATTTGAGG	ATAAGCTTCT	TCATAAGCCC	1920
GTATCCCATC	AGCAGGATGG	ACATTTAAGG	AGAGTTTTAG	CTTTCTATCA	TGAAGTTGTT	1980
GCAATAACTG	TTCTGGATTT	GGTATTAAGT	TTCTATTCCA	ACTATATCCT	GTCCAGCCAC	2040
TTCCAAAGCG	AGCTGGAATG	TCAGTTATAT	GCCAATCCAT	ATCTAACACA	CCGATAGATA	2100
ATGGAATTTT	CTCTGTTTCA	AATCTGTCTA	TTAAATCCAA	GTATTCATCC	GACGTATAAG	2160
GCCAATATCT	ACTCCACCAA	TTGCCTAAAG	CATATCTTGG	CAACAAGGGT	GTTGAACCAG	2220
TCAAATGGTA	AAAATCTCTG	ATTGCTCCTC	TATAATCATG	CCCATAGGCA	AAGAAATACA	2280

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GGTCAATTTG ATTTTCTCTC TCAATATAAC CAGATTGTTT ATCCCAAATA AATCCTTGAG	2340
AATCATCCAA TAAGGCTATA CCATTTCCGC TAATAATTCC ATCTTCTAAC GAGATTGCTC	2400
CATCTGCCTT ATCCAGAGTC CGAGCTGTTT CTTTAACTT TTCAATAGAT TCACCAAAAT	2460
ACCAGCGACT ACCATATACG GCAAAATTTT CTTTAACTT TATAAATAAA TTTTCGGCGT	2520
TAAATTCTCC TTTATTAAAG TGCAGATGAA AATAGTCCGT CATAATATCT AGTACGTTTG	2580
ATGTCTCGAT ATAATCTAAC GAAATTTGGC CAAATCTCT ATTATAGATA AGTTGTGTCTG	2640
TTCTATCCTC AAAACTTCCA GTTTGAGAGT ATTCTAACCT TACTAGCTTG TCTGTAAATA	2700
CAGAGATTCT ATAAACTCTT CCCTTAAAAA TTTTCAATTT GTTTTCCTCC TTTTATGGTA	2760
GCATAAAAC AGAACGCACC ATTTTGTATG CGTTTTTCAT TATTCTGAAT GCAATGTTCT	2820
ATCTGTTATA TCTATGACAA ATAATAGTCA ATTGAAAAA TGCAGTGGAC AAAATATCTT	2880
TTAACAAACC AAGAGTTTAT TAAAGAGTTA TCACTTTCA ACTTTTCTAA GCTTATGCAG	2940
TTGTGAAACA AACTACTTTT AAATATTAA CTAAGATAGG ATTGATAAAT AATTTCAAAC	3000
TCTTACTAGC AATCATACGA TATTCAAGCT CACGTGCTTT TTTCTTCTT GCTTATTTCT	3060
TAGAACTGAA GAACCCGGAT CGGTATATAA ATTATCCGA TCAACATAGT CATAAGATTC	3120
ATAACAGTTG CGCTTCATTA AGTCATCCCC AGAGCAAGAG CTTTCTCTG TAATTTTCA	3180
ACATCACTAA CCGTAGGTCG CCATCCTTCA ATCATATTTG TACTTAAAGC ATACCAAACA	3240
CTCTTAAAAA CGGATCGGTT TTCAAAAGCT ATTCCCATGA TTGTCATCTT TTCTTTATCT	3300
ATATCTAAGG ACATATGCTA CCTCCTTTAG ATACATTATA CCATGTTTCT CTGTAGCTTT	3360
TAAAAATTTT ATTTTGTGTTG TCATATCTAA GTTTTCAGCA CGCTTATCCT ATTTTATAAG	3420
CCTCAAACCC AAATATAAAA CGCATCTTTT TTGCTTTTTT ACTATTGTAT CGTATTCTAC	3480
GATAACATAC TTTACTTTAT TGTTTTTTTA AATAACAGCA GTTCCCTGTT TATCAACTAT	3540
TCGAACTACT TTCTATTTTG CTTTATACCC TACATAGCGA AAAAATATGA AAAAGCAGAG	3600
AAGAATATCT TAAAAAGACC TCTTCACTGC TAATATTAACT ACTCATTATT TAACTATAT	3660
GGATTCTATC ATCGAGTATA CTTTTTTACT TATTAGATAC CTTGCTCTTC TTTCACCAAT	3720
TTTTGATCAT ATACACGGAT GAATGGAAGA TAGACTAGGA ATGCTGCAA TGCACATACT	3780
AGAGCAACTA ATACAGCTCG AAGATCTGCT GTCCCTAAGA AAGCTCCAAT CCCTACTGGA	3840
GTTGGCCATG GAACCTGTGC GATAATTGGC TTAATAAAGT TTAGAGAATT CGCTACGTAA	3900
TAAATAGTAG CAGTAACCAT TGGTGCTAAA ATAAATGGTA TAGCCAAGGC TGGATTATAG	3960
ATAATAGGTA ATCCAAAAAT TAATGGTTCA TTAATATTAA ATAAGGCTGG AACTACAGAT	4020

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GCTCGTCCTA TTGCTTTAAG CTGTTTCAGAT TTAGAGGCAA AAGCAATATA TAAACATAGT	4080
CCTAAAGTTG CACCAGAACC ACCTGCAATT ACAAACATAT TAGAAAATTC ACCTGCAACA	4140
GCGAAGTGCC CGCCAGCAGC ATTTTCAGCC ATGTTAGCAA GAGCAATTGG ACTAACAAAT	4200
GCAAAAACAA TGTTGCGACC GTGGATACCT ACAATCCAAA GTAGTTGAGT CAATAGATAA	4260
ATAATCATT AACC AATCCA CGAATTAGTC AGATTGGATA CAAATACCAA TGGAATTGCA	4320
ATGACTTTAA AAATATCTGT TCCCATTGCT ACAAGAAGAC CGTTGATAAA GATAACAACA	4380
AATGCAACAA CAAATCCCGG AACCAAAGCG GTAAATCCAC GAGAAACTCC TTCTGGAACA	4440
GCTTCAGGCA TTTTAATAAC CCAATTATGT TTAACACACA TACGATAAAT AAGAACAGTC	4500
ACAATTGCCA TAATGATTGC GGTA AAAATC CCTGTTGTCC CAAAACGTGC GACTACATTT	4560
CCCATTGCCC ATCCATCTGC AATTACTGCA CCTTCTTTTA GACTTGTCAC AGTCTTCATC	4620
ATTCCACCAT CAAAATGAT TTGCGGTACT GTCATGACAA AAGCCATCAA GGCAAGCAAG	4680
GCACCATTAA GAGGATTCAT ATTGAGTTCT TCTTCCTCTG CATAAATTTT TGTCAATTCA	4740
TATGCAAGTG ATAGAACGAA ATAAAGAGAT AGAGAACCCA TAGTCGCATA GTTTGCAACC	4800
ATGTAAAGTG ATGTGAATTT ATCAAATGAA GCAGAGAAAA TATCTGCCAC AATTGGCCAA	4860
AATGAGAAAG CTTGTGGCAA AATACTGAAT ACCAAAAACA TTGATCCTAC AATAGTAAAT	4920
GGTACAGCAG CCATACCTGC AGCCGTGATA GCACGTACTA CTTTAAACTG AGCAAGTTTG	4980
CCCATTGGTC CCATAACATG GTTTTCAAGA AAACCAAACA ACCCGTTTTG TTGATCCATA	5040
AATAGACCTC CTTAATAAAA CATAATAATT TTTACTTTCT AAAGACTAGT TTCAAATACA	5100
AATTATACTA GATCAGGATT ATAAACTAAG TGAGTTCTTT TCCAATTGGA CAAATTGTTG	5160
ATAAGCCTTA TCTGTTCTGT TATAAATTTT TTTAATTCTT CTAATGTCTA ACAAACCTCAG	5220
AACTAAACCT AATAGAAGAA CTACAAAAAC AAATAAACGT GCTACTTGGT TATTTTCAAA	5280
AATCGGAAAA AGATTCTTAA ACCAACTTGT CCAAGTTAAA ACAAGTAATC CTATTGAAAT	5340
AAGCATTGTG ATTCTAACAA ACATTAGTGT TATTCCTAAC TTTCTTTTCC TATTTCCATA	5400
AAGTTTAAAT TGTTCAACAG TTGCTAAAAT AGAAAATACT ATGAGCATAA TGGGGAAAAT	5460
AATAATAGGC GAGGGACTAA TAACTGACT CAAAAGCCAA TAAATATTCC CAAAAAGAA	5520
GAGTGCTATT GAATAACGTA GAAGAAGATA TCGATTGAAA AAAGTATTAG TTAGAGCCAT	5580
CTCTCGACGT TGTTGTTCAA TCTTTTGTCT TCTTTTPTTA TCCATATCAT TTCTCCTTA	5640
TATAACAACA CATATTTAGT TAACTTTCTT ATAAAGAGCT AACATTTCTT TTGCTACTTC	5700
TAATAATGTC ATAGTGGTCA TTAAATGATC TTGAGCATGT ACCATGATAA TTTCAATTTT	5760
AATTTCCACT CCACTTGCGT ATTCTTGCAA GAGTTTGCTT TGTGCATGAT GCGCTTCAAG	5820

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AATTATCTCA	TTTGATTGAT	TTAATTTACT	TTCTGCATCA	TCAAAACTAC	CTTCTCTCAT	5880
TTTTGCAAAT	GCTTCATGTA	TTTCTGACCT	TGCATTTCCC	GAATGCAGGA	TAATTTCAAA	5940
TGCTGCAACC	TGCAGTTCCT	CTTGATTCAT	ATAAACCTCC	TATTTTATCT	TCTCAAATAT	6000
GTTAATAAAA	TCTTCAAAGT	TATTGCAAGA	TATTAGCTGA	TTTGCAATT	CATCATTTCTC	6060
TGTCAGAGAG	ACTATCTTTT	TAGTCACAGT	TGCCAAACCT	TCGTTCCCAT	ATATTGATGG	6120
AGATAGAAGA	AATACTAGCT	GGACATGTGA	ACTTTGATTA	TCCCAGAGTA	ACGAATCTTT	6180
ACAAATTGCA	ACCGAAACCT	TTCCCTCTGT	ACCAAAGGGC	TGAATAGGAT	GCGGAACTGC	6240
AATTTTTTCA	GAAAAACAA	CTGAACTTAA	TTCTTCGCGC	TGTTTAATTC	CATAAAGTAA	6300
AGATTGTTCA	AACTCATTTG	ATTCACCAAC	AGATAAACTC	TCAACCATCT	TTTCAAGTAA	6360
ATTTACCTTG	TCTGATTCAG	TACATATTAA	AAAGTTTTCT	TTACTAAAAT	ACTGTCTAAA	6420
GCCGTTGTTT	TCAAATTTGT	TAATCTTTGA	TGATTGTACA	TAACTAGAAA	CTTGCATCTA	6480
ATCCATAGCT	TTTCTAATCA	TTTCCATCTC	ATCACTCTTA	AGAAACACAC	TAACTTTAAA	6540
AACTGGGATT	TGAAAATATA	GATTTGATAA	ATCAATAGCT	GACACTATAA	AATCTATTCC	6600
TTTAAGTTTT	TCTTGATTCA	ATTCATAGTA	GCCTATTACA	TCAACAACCT	CTACTCGCTT	6660
CCCAAACCTC	GTTTCCAAAC	GATTTCTTAA	CATTTGGGCT	GCACCAAATC	CTGTTGCACA	6720
AATAGCAAGA	ATATTAACT	TAGTACTCTC	TTTGCTACGT	TCCATAGCAG	CTAAAAAGTG	6780
AAGACTTACA	TATGCTACTT	CATCATCTGA	TATTGTCCAC	TCCAAGAACT	TGTCCATATT	6840
TGCAAGAATT	TCTCTAGTCA	TAAAGAATAT	ATCACTATAA	TTCTGTTTAA	TTTCATCTAC	6900
CAAAGGGTTA	TTTAAGGTAA	TCCGGCTTTC	TAAACGTA	TGTAGTGTCA	TTAGATGAGT	6960
TATCAATCCT	TCAATTAGTT	GGAAATCTGA	AGAAAAGTTA	TACATATCAT	CTAATCCTAA	7020
ATTCTGAAAT	GTTTTAAATA	AAGATTTTTT	TAAAACCTCT	TCAGAAATAT	TCTTCTGATT	7080
TTTTTGACAT	TGTTGACTCT	TAGCTAACAA	ATGCAAAGTA	ATGTAGTCTA	TTTCCTGAAC	7140
TGGAAATTCC	TGATTTGTTA	CTTCTCTTAC	TTTAGAAAGA	ATTCTTTGGG	CAACCTTTCT	7200
CTCTATTGCA	TCATCAGTCA	TCTGACAGTC	TATATTTTTT	ATTTCAAATC	CGGATTTTAA	7260
ACGAATCACA	GACAAATGCTA	TGTGAACTAC	TAAATTCGT	AGTACAAAAT	CAGATAGTTT	7320
TAGGTTGGCC	TCTTGGCATT	CATCCAAAAC	AATTCTAGCA	AATTCTTCTA	ATGGAACAGT	7380
TTGATCAAAA	AAGTTAAATT	TTACATAGCA	ATGTATTGTT	TTAAAAAATT	GATTCTCTAG	7440
GAAATAATTT	ATGATAAAAC	GTCGTTTATC	ACGTTCCCTCG	CCTGAGACAT	AAACTCCTTT	7500
ATTCGCCCTA	CTCTCAATGG	ACAAATTATA	CTCTGATAAC	ATCACTCGTA	TCTTTCTGAA	7560

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ATCATGAGAT AATGTTGAAC GACTAACGTA AAGTTCATCA GCTAAATCAT CAAAAAGAAC	7620
TGGAACCTTGC TCAAATAATA ATTTATTTAA GATAAATACT AAACGATCAT CACCTTTTGA	7680
AACCGCAGTT TTCGTATAGT CTTCTTCCAG TTCATAAGTT TGTCTAAACT CCTGGTAAGC	7740
GCCTTGATTG TCAAAAAATA TTTGATACCC TTGACCTTGT TTTGAAATCA ACCGGACTCC	7800
TTGAATAATC ATTGTCTTCT CAATTAATTT CAGTACATTA CGGACAGTTC TATCTGAACA	7860
GGATAAATAT TCTGCCAGTT CTTTGCTTGT AACAAAACGT TCCTTATTTT TTATTAAAAA	7920
TTGAAGGATA TCTTTCTCTT TAATGTTTAA CACATTCATT CCTCCTAAA ACGTATGTTT	7980
TCATATATTG AAGCATATTA TACACTTAAA TCAGTTTATA TCAAACCTCA AACAAATTTAT	8040
CTTAACCTAA ATATTTATTG ACATTTTCATG TGTTCATCAA ATATTCTCAA GAATCAAATT	8100
AGCCATTTTT TCAATTCCCA TTGGAATAGG AATATAGGCT TGAGGAGGTA TTTGTACAAC	8160
TGGTTTTCTT GCTTTAGAAC CAGCCTCTTC AAATTGCTTA AAGTACATTT TTGTTTGAGG	8220
ACTGACAAGA TACAAATCAA AAGCTGCTGC TGCATAGCT TTCCCTCCTT CAGTAGCACT	8280
AATAGCATCA ACTACAATAT CTTTCCCTTT TCCTTTTAGA AACTCTGTTG TTTTCTGTGC	8340
CATAAGTGAT GAAGACATTC CTGCTGCACA AATAATTAAA GCTTTTGCCA TAATATTTTC	8400
TCCTTTTCTT AAATCCAATC AAAGCTGTGC TAAGTTGGCT TATTTGTTAT CTATTTTAT	8460
TATAAAATAA AGCGTTTCCA ATGACAATTC CCTCATTTTC CTAAATGATA TGGAAAAAA	8520
TTATTTATAC TTCAATTTAT AAAATAAAAT TATTCCTGAG AGTAGAAATG AAACACTATT	8580
TGCTAAAATC AAAGGCAAGT CTCCTATACG AATACCATGA GCAAGCCACA ATGCAATACC	8640
AATAACTTGC ATAACATACA TACCTAGAGC AATAGATCCT GTGTCCTTTG TCTTAACTAC	8700
ACGAAAAACT TGTGGTAAAA ATGCAAATGT TGTAAAATT GCTGCAATAC TTCCAATCAT	8760
ATGTCACCTC AATATGCTAA ACAAACCTGAG AATAATCTCA GTTTGTTTAT ACTATTCTAC	8820
TGATTCACCG TTAGATGAAA TAACTTCCTT ATACCAGCCA AAAGATTTTT TCGGGGAACG	8880
ATTATAACTT CCCTTCCCAT TATCATCTTT ATCTACATAA ATAAAGCCAT AACGTTTCCG	8940
CATTTACCG GTACCAGCTG AAACCAAATC AATACATCCC CATGGAGTAT AACCCATTAA	9000
ATCAACACCA TCTTCAACTA CAGCCTTTTT CATTTACGA ATATGGGCAC CTAGATATTC	9060
AATTCTATAA TCATCATGTA CCATACCATC TGCTGCAACT TGATCTATAG CTCCAAAACC	9120
ATTTTCAACA ATAAAGAGTG GTAAGTGATA GTGGTCTGTA AACCAATTTA ACGCATAACG	9180
CRAACCTTCT GGATCAATTT GCCACTCCCA TTCAGAAGCC TTAACATAAT TATTTTTCAC	9240
TAAATCTTCT GTTTCAGAT AATCAAAATA AGGATTATTT TCACGATGAG AGTCGATAGC	9300
AAAGGACATA TAGTAACTGA AACCAATGTA ATCTACAGTC CCACCAAGTA AATCTTCTTT	9360

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ATCCTGGGCA GTAAATCAA CTGAAATACC TTTTCGTTCC CAATACTTGA AAATATGCTC	9420
AGGATATTTA CCTAAAACAT GCACATCAGC AAAATAATAA CGCTTCTGCA TAGCTTTCAT	9480
TGCCATTAAG ATATCCTTAG GATTGCAAGT AACTGGATAA ATTGGACACA TCGCAATCAT	9540
ACAACCTATT TGAAATCTG GATTAATCTC ATGACCAATT TTTACAGCTC GTGCAGAAGC	9600
AACTAATTCG TAATGTGCTG CTTGATACAT AATTGCTTCT CTATTATCAC CTTCTCATA	9660
TACAATACCT GAGTTAGTAA ATGGTGCAAA ATCTTCTGTA TAATTCGCTT GATTATTGAT	9720
TTCATTGAAA GTCATCCAAT ATTTAACCTT ATCTTTGTAA CGTTTAAATA CGACTTCTGC	9780
AAAACGAGCA AAGAAATCAA TCAATTTCTT ATTTTTCCTT CCACCATATT CGGTCACTAA	9840
GTGATAAGGC ATTTCAAAAT GAGATAGAGT GATGACAGGT TCAATACCAT TCTTTAAGCA	9900
TTCATCAAAA AGATTATCAT AAAACTGTAA TCCTTCTTCA TTCGGCTCTA ACTCATCACC	9960
TTTTGGAAAG ATACGTGTCC ATGCAATAGA GGTACGGAAG CACTTGAATC CCATTTTCAGC	10020
AAAAAGTGCT ATATCTTCTT TATAACGGTG ATAAAAATCT ATCGCCTCAT GATTTGGATA	10080
ATATTTACCC TCTAAACTC CCAAAGTAAT TTCACGAGCT ACTCCATGAC GACCAGCAGT	10140
CATAACATCA GCAACACTAA TTCCCTTGCC ACCTTCTTGC CATCCACCTT CAAGTTGATG	10200
AGCAGCAACA GCACCACCCC ATAAAAATCC ATCTTTAAAA GTAGTCATCT TTTTTCCTCC	10260
TGACTTTGAT ACTCTTATTA TAAACCTTAA ACCAAAAGAT GAAAACGCAT TCTTTTCTCT	10320
TATTGTAAAG GAAAGAAGTA ATTTTAAATG GAAATAGAAC AATATCTTCT TGTATTCTCG	10380
TAATGATATC TTTACGATTT TCAATACTTT CAAACTACAA AAACCTCTAC AATAATTCTA	10440
ATTCCCTGTG TCTATAAAGC ACTTATCGCT TTCTGGCATC CCAGAATCAT CTTCTATATA	10500
ACGTTCAACT TGCATCTGCA AGTGATATTT TTTCTTAAA TCTAAGATTT TCTGCATTGT	10560
CTTGATTGA TAATGTTTAT CTAAAGTTT TTTGATTTAT CACTGATCAA TAAGGAGAAT	10620
AGTTCCCTCT TTTTCAATTG GTAAAAATA TTCGTATTTT AAGTTACCTT TTTGATTTCT	10680
AATTTCTTTA ACAAGGCCAC TATCAAGCAT TTCTCTTGCA AACTTTATTG CACTATCTCC	10740
ATCACCTTTA TAATATACAT GAATAGTCAA TGTCATCTTA TATCCTCCAA AATCATCCTT	10800
CAATTTTAAA AAAACAAGTT TAGATGAGGA TCTAAACTTG TTTTATGA ACTAATTATC	10860
TAACGTTTCG CCATTACTTT CAATCACTTC TTTATACCAA TAAATGATT TTTCTTATA	10920
GCGATTTATA GTCAATTGAA ACAAGAGCAG GACAAAAGAG CCTCATAAAA GGTATTGCAA	10980
CTTGGTAATA CCTTTTGTAG GTGCTTTTGT ATATGAGCCC ATGTTTCTC AATAGGATTG	11040
TACTCAGGTG AGTAGGGAGG AAGAGGTAAA AGTTTATACC CAACTCTTC ACACAAGAGT	11100

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TCTAGCTTCC CCATTCTATG GAATCTTGCA TTATCCATAA TAATAACCGA TGGTGTGGTT	11160
AATGTTGGTA AGAGAACTT CTGAAACCAA GCTTCAAAAA AGTCGCTCGT CATCGTCTCT	11220
TCGTAAGTCA TTGGAGCGAT TAACTCACCA TTTGTTAGAC CTGCAACCAA AGAAATCCTC	11280
TGATATCTTC TTCCAGATAC TTT	11303

(2) INFORMATION FOR SEQ ID NO: 116:

- (i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 3112 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 116:

CCTTAGATTT CCACTTGCCA GAGGAATTGA TTGCCCAAAC GCCCCTTGAA AAACGTGATG	60
CCTCCAAACT CCTCATCGTC AACCGTGAGA CAGGAGAAAT GCAAGATAAA CATTTCCACT	120
CTATTATTGA TATGCTGGAA CCTGGTGATG CCCTTGTCAT GAACGACACC CGAGTTCTCC	180
CTGCCCCGCT CTATGGTCAA AAAGTGGAGA CAGGAGGTCA TGTGGAACCT CTCCTCCTTA	240
AGAACACTAG TGGAGACGAG TGGGAAGTTC TGGCTAAACC TGCCAAACGC CTCAAGGTCG	300
GTACTCGTAT CAGCTTTGGT GATGGCCGCC TCAGCGCTGT CGTTACAGAA GAATTGACCC	360
ACGGGGGACG CATTGTCCGC TTTGAATACC AAGGAATTTT CCTAGAAGTC TTGGAAAGTC	420
TGGGAGAAAT GCCTCTGCCA CCTTATATCC ACGAAAAATT AGATGACCGT GAACGTTATC	480
AAACCGTCTA CGCCAAGGAA AGTGGCTCTG CTGCAGCACC GACTGCTGGT CTTCACTTCA	540
CCAAAGAACT GCTGGCAGAA ATCCAAGCTA AGGGTGTTCA TCTAGTCTAT CTGACTCTCC	600
ATGTCGGACT CGGAACCTTT AGACCTGTTT CTGTGGATAA TCTGGACGAA CACGAAATGC	660
ACTCAGAGTT CTATCAACTT TCTGAGGAAG CTGCTGCCAC CCTTCGCTCT GTCAAAAAAA	720
ATGGTGGTCG TGTCATCGCT GTCGGAACCA CTTCTATCCG CACCTTGGAA ACTATTGGTT	780
CCAAGTTTGA TGGGCAAATC CAAGCAGATT CTGGTTGGAC CAATATCTTT ATCAAACCTG	840
GGTATGAGTG GAAGGTCGTG GATGCCTTCT CAACCAACTT CCACCTGCCA AAATCAACTC	900
TGGTCATGTT GGTTCCTGCC TTTGCAGGCC GTGAATTAGT CTTAGATGCC TACCACCATT	960
CCATCCAAGA ACACTACCGC TTCTTCAGTT TTGGTGACGC CATGTTTATT TATTGAGAAA	1020
GAATTTCTCT AAATCTTCTA ATACCAATAA ATCGCTAAGA TATTATTTCA AAGAACATCT	1080
ACAATTGAAA CTCTAGCTAG CTGTAGAAGA GGCCTAGTAC ATTGAAATTA AAATGCTTCC	1140
CCCTAGCTTC GAAAATATTG CCATAGATTG CGTTGACTCT CCAAATTGAT TCATCTATAT	1200

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TTTATTTTCAG CTTCTTATAC TTTCTTCGCT GTTTGTAAAT CAAAATGCAA GACACATGAG	1260
TAGCACCATA TTTGTTACTC TTATCTGTCC TCTCAAGAGA CTATTATGAG TTATTTTCAGA	1320
ATCATTCACT ACTTTGACCC TGACTCTCCT TAGTCTCAAA ATCAAAGACT TATACTCTTC	1380
AAAAATCTCT TCAAACCGCG TCAACGTCAC CTTGGATTAT ATATGTGatC TGaCTTCGTC	1440
AGTTCTATCT ACAACCTCAA AGCAGTACTT TGAGCAACCT GCGACTAGTT TTCTAGTTTG	1500
CTCTTTGATT TTCATTGAGT ATTAACAAA AAGTGAACAA ATCTGAATTC TAATGTACAG	1560
AAGACTAGGC TTGTTCACTT TTTTATAGTC GCTATAAGAT GACCTTATCT ATAGCTTTTT	1620
ATATATAATT ATATATTCAG ACATACTATT ATCAATTTTG TCGCAGGGAG GAATCTGTTA	1680
ACGCACCCAT TCACCATTAT CATTGACTCT ATAGCCATCT ATACTTGTAT TGACCGCTAA	1740
CTCACCCGAT GTATTTACAT AATACCATT ACCACCAACT TGGAAACCATT GATTGACTTT	1800
CATAGAACCG TTGCTGTTGA GGTAGTACCA TGAACATTA ACTTGTAACC AACCTGTTGC	1860
CATGGAACCA TCAGTATTAT AAAAATACCA CATACCATT TCTTGTTTCC AGTCTGTTGT	1920
TGGAGCAACT GCTTTAGCTG GTTCTACTGC TACATCTGTT CCTTGTTAG ATGTAACAGA	1980
TACAGGATAC GAAGGAATAG ATGATTGCTC AGGAACAACA ACTTTTTTCAG GTTCTCTCGT	2040
CCCTCTCCTT ATACGTCTTT TTACCATCTC TTTAGTAATT TGACGAGAAG TAGTTTCTTC	2100
AATTGTTCCA TCACGTTTAT CTACAGTATA GATTGTAGTA AGAGTAATTT ACCAATTTCT	2160
CCTACTTCTT CTACTTCTTG ACTTTTATCA AGAGTTGGGC CATCGAGATA TTCTGTTTCG	2220
ATTGGAATTT CTTGGACAAG AACTTGGGGC TTGGTTCTTT TTTAACAAC TCTTGTTTGA	2280
GAGTCTTTTT TTTGACTTAA AGTACTCTCA GTTACTTGTC CACTCTTTCC ATCTACATTA	2340
TAAGTTATCG TTGTAAGTGT TTTCCCATTC TTTCTAGAG TAATCTCTTG CTCCTGTCCT	2400
GCAGAAAGGT CATTGTCTGC TTCATATTTA GTAGCAAATG GAACAAGAAC TTCTTCAACC	2460
TTGCTTTTAG CTGGAACCTT GATAACTGTA TCCGTGGCTT CTTTCTATC AACAGTAACC	2520
TGTTCCGTAA CATAACCAGT CTCTGGATTA ACATCGTAGG TCCTTGTCGT AGTTACATAG	2580
CCATCCTCTC CATCAATTGT AACAGGATTT TCACTACGGT CTTTGTGTTT ATCTTTTCA	2640
TAACGAATTC GCGTACTTGA AATTTTCTTG GTTACTACCT TAGGTTTAGT CGCTACTTTT	2700
ACAATAATAT CCCCATTTGTC AGCGTCATCA TACTCTATTC CCTCTTCTTT ATCTCTAGTA	2760
TCATCTCTGA CATATTGAAT CCCATCAGCA GCATGAACAA AACTTGTATT CAGATTCCTC	2820
CTAAAAATAA AGTTAGCCCG ATTACCGCAG AACCAAAAAT CTTTCCGAGT TTACGTATTG	2880
CATAGCGCTT ATTAGTATTA GATTTTGCCA TTACATCCTA CTTCTAGTAT AGCATCTTTT	2940

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CTATCAAACG TTAAACAATA TACGTTATAT ATAAAATAGA CTTAGAATGA TATATTGATT 3000
ATTGAACTAA CACTTTAACT ATATCGTAAT CAATCTCATA TATAAAGGAT TGCAGACATC 3060
TTATCTAAAT ACATGCGAAT ATATTTAGAT ACAAACATTC CAACTTGATA AT 3112

(2) INFORMATION FOR SEQ ID NO: 117:

- (i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 4327 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 117:

CCCCAAAATC TCTTCAAACC ACGTCAGCTT CGCCTTGCCG TAGTATGGTT ACTGACTTCG 60
TCAGTTCTAT CCACAACCTC AAAACAGTGT TTTGAGCATC ATGCgGCTAG CTTCTTAGTT 120
TGCTCTTTGA TTTTCATTGA GTATAAAAAC AGATGAGTTT CTGTTTTCTT TTTATGGACT 180
ATAAATGTTT AGCTGAAACT ACTTTCAAGG ACATTATTAT ATAAAAGAAT TTTTGAAC 240
TAAAATCTAC TATATTACAC TATATTGAAA GCGTTTAAA AATGAGGTAT AATAAATTTA 300
CTAACGCTTA TAAAAAGTGA TAGAATCTAT TTTATGTAT ATTTAAAGAT AGATTGCTGT 360
AAAAATAGTA GTAGCTATGC GAAATAACAG ATAGAGAGAA GGGATTGAAG CTTAGAAAAG 420
GGGAATAATA TGATATTTAA GGCATTCAAG AAAAAAAGC AGAGAAAAAG ACAAGTTGAA 480
CTACTTTTGA CAGTTTTTTT CGACAGTTT CTGATTGATT TATTTCTTCA CTTATTTGGG 540
ATTGTCCCCT TTAAGCTGGA TAAGATTCTG ATTGTGAGCT TGATTATATT TCCCATTATT 600
TCTACAAGTA TTTATGCTTA TGAAAAGCTA TTTGAAAAAG TGTTGATAA GGATTGAGCA 660
GGAAGTATGG TGTAATAGC ATAGGCTGAT GTCCATCATT TGCTTATAAA GAGATATTTT 720
AGTTTAATTG CAGCGGTGTC CTGGTAGATA AACTAGATTG GCAGGAGTCT GATTGGAGAA 780
AGGAGAGGGG AAAATTGGCA CCAATTGAG ATAGTTTGTT TAGTTCATTT TTGTCATTTA 840
AATGAACTGT AGTAAAAGAA AGTTAATAAA AGACAAACTA AGTGCATTTT CTGGAGTAAA 900
TGTCTTATTT CAGAAATCGG GATATAGATA TAGAGAGGAT CAGTATGAAT CGGAGTGTTT 960
AAGAACGTAA GTGTCGTTAT AGCATTAGGA AACTATCGGT AGGAGCGGTT TCTATGATTG 1020
TAGGAGCAGT GGTATTTGGA ACGTCTCCTG TTTTAGCTCA AGAAGGGGCA AGTGAGCAAC 1080
CTCTGGCAAA TGAACTCAA CTTTCGGGGG AGAGCTCAAC CCTAACTGAT ACAGAAAAGA 1140
GCCAGCCTTC TTCAGAGACT GAACTTTCTG GCAATAAGCA AGAACAAGAA AGGAAAGATA 1200
AGCAAGAAGA AAAAATTCCA AGAGATTACT ATGCACGAGA TTTGGAAAAT GTCGAAACAG 1260

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TGATAGAAAA AGAAGATGTT GAAACCAATG CTTCAAATGG TCAGAGAGTT GATTTATCAA	1320
GTGAACTAGA TAAACTAAAG AAACCTGAAA ACGCAACAGT TCACATGGAG TTAAAGCCAG	1380
ATGCCAAGGC CCCAGCATTG TATAATCTCT TTTCTGTGTC AAGTGCTACT AAAAAAGATG	1440
AGTACTTCAC TATGGCAGTT TACAATAATA CTGCTACTCT AGAGGGGCGT GGTTCGGATG	1500
GGAAACAGTT TTACAATAAT TACAACGATG CACCCTTAAA AGTTAAACCA GGTCAGTGGG	1560
ATTCTGTGAC TTTCACAGTT GAAAAACCGA CAGCAGAACT ACCTAAAGGC CGAGTGCGCC	1620
TCTACGTAAA CGGGGTATTA TCTCGAACAA GTCTGAGATC TGGCAATTTT ATTAAAGATA	1680
TGCCAGATGT AACGCATGTG CAAATCGGAG CAACCAAGCG TGCCAACAAT ACGGTTTGGG	1740
GGTCAAATCT ACAGATTCGG AATCTCACTG TGTATAATCG TGCTTTAACA CCAGAAGAGG	1800
TACAAAAACG TAGTCAACTT TTAAACGCT CAGATTTAGA AAAAAACTA CCTGAAGGAG	1860
CGGCTTTAAC AGAGAAAACG GACATATTCG AAAGCGGGCG TAACGGTAAC CCAAATAAAG	1920
ATGGAATCAA GAGTTATCGT ATTCCAGCAC TTCTCAAGAC AGATAAAGGA ACTTTGATCG	1980
CAGGTGCAGA TGAACGCCGT CTCCATTGCA GTGACTGGGG TGATATCGGT ATGGTCATCA	2040
GACGTAGTGA AGATAATGGT AAAACTTGGG GTGACCGAGT AACCATTACC AACTTACGTG	2100
ACAATCCAAA AGCTTCTGAC CCATCGATCG GTTCACCAGT GAATATCGAT ATGGTGTTCG	2160
TTCAAGATCC TGAACCCAAA CGAATCTTTT CTATCTATGA CATGTTCCCA GAAGGGAAGG	2220
GAATCTTTGG AATGTCTTCA CAAAAAGAAG AAGCCTACAA AAAATCGAT GGAAAAACCT	2280
ATCAAATCCT CTACCGTGA GGAGAAAAGG GAGCTTATAC CATTGAGAA AATGGTACTG	2340
TCTATACACC AGATGGTAAG GCGACAGACT ATCGCGTTGT TGTAGATCCT GTTAAACCAG	2400
CCTATAGCGA CAAGGGTGAT CTATACAAGG GTGACCAATT ACTAGGAAAT ATCTACTTCA	2460
CAACAAACAA AACTTCTCCA TTTAGAATTG CCAAGGATAG CTATCTATGG ATGTCCTACA	2520
GTGATGACGA CGGGAAGACA TGGTCAGCTC CTCAAGATAT TACTCCGATG GTCAAAGCCG	2580
ATTGGATGAA ATTCTTGGGT GTAGGTCCTG GAACAGGAAT TGTACTTCGG AATGGGCCTC	2640
ACAAGGGACG GATTTTGATA CCGGTTTATA CGACTAATAA TGTATCTCAC TTAGATGGCT	2700
CGCAATCTTC TCGTGTCATC TATTCAGATG ATCATGGAAA AACTTGGCAT GCTGGAGAAG	2760
CGGTCAACGA TAACCGTCAG GTAGACGGTC AAAAGATCCA CTCTTCTACG ATGAACAATA	2820
GACGTGCGCA AAATACAGAA TCAACGGTGG TACAATAAA CAATGGAGAT GTTAAACTCT	2880
TTATGCGTGG TTTGACTGGA GATCTTCAGG TTGCTACAAG TAAAGACGGA GGAGTGACTT	2940
GGGAGAAGGA TATCAAACGT TATCCACAGG TTAAAGATGT CTATGTTCAA ATGTCTGCTA	3000

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TCCATACGAT GCACGAAGGA AAAGAATACA TCATCCTCAG TAATGCAGGT GGACCGAAAC	3060
GTGAAAATGG GATGGTCCAC TTGGCACGTG TCGAAGAAAA TGGTGAGTTG ACTTGGCTCA	3120
AACACAATCC AATTCAAAAA GGAGAGTTTG CCTATAATTC GCTCCAAGAA TTAGGAAATG	3180
GGGAGTATGG CATCTTGAT GAACATACTG AAAAAGGACA AAATGCCTAT ACCCTATCAT	3240
TTAGAAAATT TAATTGGGAA TTTTGTAGCA AAAATCTGAT TTCTCCTACC GAAGCGAACT	3300
AGAGAGATGG GCAAAGGAGA GATGGGCAAA GGAGTTATTG GCTTGGAGTT CGACTCAGAA	3360
GTATTGGTCA ACAAGGCTCC AACCCTTCAA TTGGCAAATG GTAAACAGC GACTTTCCTA	3420
ACCCAGTATG ATAGCAAGAC CTTGTTGTTT GCAGTAGATA AGGAAGATAT CGGACAGGAA	3480
ATTATTGGTA TAGCTAAAGG AAGCATCGAA AGTATGCATA ATCTTCCTGT AAATCTAGCA	3540
GGTGCCAGAG TTCCTGGCGG AGTAAATGGT AGCAAAGCAG CGGTGCATGA AGTTCCAGAA	3600
TTTACAGGGG GAGTTAATGG TACAGAGCCA GCTGTTTCATG AAATCGCAGA GTATAAGGGA	3660
TCTGATTGCG TTGTAACCTCT TACTACAAAA AAAGATTATA CTTACAAAGC TCCTCTTGCT	3720
CAGCAGGCAC TTCCTGAAAC AGGAAACAAG GAGAGTGACC TCCTAGCTTC ACTAGGACTA	3780
ACAGCTTTCT TCCTTGGTCT GTTTACGCTA GGGAAAAAGA GAGAACAATA AGAGAAGAAT	3840
TCTAAACATT TGATTTTGTA AAAATGGCTC TTTGTCAACT GTAGTGGGT GAAGTCAGCT	3900
AAGCTCGAGA AAGGACAAAT TTTGTCTTTT CTTTTTTGAT ATTCAGAGCG ATAAAAATCC	3960
GTTTTTTGAA GTTTTCAAAG TTCCGAAAAC CAAAGGCATT GCGCTTGATA AGTTTGATGA	4020
GATTATTGGT CGCTTCCAAT TTGGCGTTAG AATAGTGTAG TTGAAGGGCG TTGACGATTT	4080
TCTCTTTGTC CTTTAGAAAG GTTTTAAAGA CAGTCTGAAA AAGAGGATGA ACCTGCTTTA	4140
GATTGTCCTC AATGAGTCCG AAAAATTTCT CCGGTTCTTT ATTCTGAAAG TGAAACAGCA	4200
AGAGTTGATA GAGCTGATAG TGATGTTTCA AGTCTTGTA ATAGCTCAAA AGCTTGTTTA	4260
AAATCTCTTT ATTGGTTAAA TGCATACGAA AAGTAGGGCG ATAAAAATGT TTATCGCTGA	4320
GTTTACG	4327

(2) INFORMATION FOR SEQ ID NO: 118:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 3521 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 118:

CTCTGGCCCT GCCACTCCAA CGTTTTGTCA GGGTGCTTTT TTCATAAAGG AGTTCTTATG	60
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843

TTAGATATCA AACGTATTCG TACAGATTTT GAAGCTGTCG CAGAAAAATT AGCTACACGT	120
GGTGTAGATG CTGCTGTCTT GAATGAAATG AAAGAAATCG ATGCTAAACG TCGTAACATC	180
TTGGTCAAGG TTGAACTCT CAAAGCAGAA CGTAACACAG TTTCTGCTGA GATTGCCCAA	240
GCTAAGCGCA ACAAGGAAAA TACAGATGAC AAGATTGCTG CCATGCAAAA TCTATCTGCT	300
GAGGTAAAG CCTTGGATGC TGAATTGGCA GAAATCGATG CTAAATTGAC AGAATTTACA	360
ACGACTCTTC CAAATATCCC AGCTGACAGC GTTCCTGTTG GGGCTGACGA AGACGACAAT	420
GTGGAAGTTC GCCGTTGGGG TACTCCACGC GAGTTTGA CTGAACCTAA AGCTCACTGG	480
GATCTCGGTG AAGACCTTGG TATCCTTGAC TGGGAACGCG GTGTAAGGT AACAGGCGCT	540
CGCTTCCTCT TCTATAAAGG CCTCGGTGCT CGTTTGAAC GTGCTATCTA CAACTTTATG	600
TTGGATGAAC ATGGAAGA AGGCTATACT GAAGTCATCA CACCTTACAT AGTCAACCAT	660
GATTCTATGT TTGGTACTGG TCAGTATCCA AAATTTAAGG AAGATACTTT TGAATCAGC	720
GATACCAACT TTGTCTTGAT TCCAACGCT GAAGTTCCTC TGACAACTA CTACCGTGAT	780
GAAATCTTAG ACGGCAAAGA TCTTCCAATC TACTTCACTG CCATGAGTCC GTCATTCCGT	840
TCTGAGGCTG GTTCTGCCGG TCGTGATACG CGTGGCTTGA TCCGTTTGCA CCAATTCCAC	900
AAGGTTGAAA TGGTCAAATT TGCCAAACCA GAAGAATCTT ACGAAGAATT GGAAAAATG	960
ACAGCCAACG CTGAAACAT TCTTCAAAAA CTCAACCTTC CATACCGTGT CGTTGCTCTC	1020
TCTACTGGAG ATATGGGCTT CTCAGCTGCG AAGACTTACG ACTTGAAGT GTGGATTCCA	1080
GCACAAAACA ATTACCGTGA AATCTCAAGC TGTTCAAACA CAGAAGATT CCAAGCCCGT	1140
CGTGCCCAA TCCGTTACCG TGATGAAGCA GATGGCAAGG TGAACTCCT TCATACCTTG	1200
AACGGTTCTG GACTTGCAGT TGGACGTACA GTGGCTGCAA TTCTTGAAAA TTACCAAAT	1260
GAAGATGGTT CTGTGACCAT CCCAGAAGCA CTTCTGTCAT ACATGGGTGG AGCTGAAGTC	1320
ATCAAACCAT AAAAAATAAG GTTTAGCTAT TTCTAGCTAG ACCTTTTTTC GTAACCAAAT	1380
CAGATAAGCA CCTAGTACAA AGAATAAAAT AGTTAGGCAT ATAATGGTTT CAGCCAATAC	1440
CAGGTAATCC AGAAATGGAA GTTTCAAAAT TCCCTGAGCC ATCTTGAGCG AGGTCGCTGT	1500
GATAATGGTT GGGAAGGTGA GGGCTGAGAA GGCTGGTTGA AAACCTTGTT TTAAATGTT	1560
GGGCAGACGA GTTAAACAA AGAAAAAGAA GGATTGAGAA GCCAAATCA TGACAATCAA	1620
GACCCAAGTC GGCAGGCTGG TTCCTCCTAC TCGAACTAGA GAAGCCAAGA GTAGAGAGAA	1680
AGGAGCACAG TAGATTCCTT CTTGTCCAAG CAAGGCTAGT GGGAGTGGAT GTTTCTTTAA	1740
ATCGCTATAA ATAAGGGGAT AGAGATAGAA GGTCAAGAGA AAACCAAAAC TCAAGGTCGC	1800

844

ATAGGCAATT TCGATAATAC CTACCAGAGG ATAGGTCAAG GCAGCCACTG CTATCCCCAC	1860
ATAGAGAACC GTCCAGCTTG GAGTGGCATG AACCTCCGC CCTGGACAAG CAACTTGAT	1920
GGTAAAACCA GCAATCAAGG TCAAATCCAA GAGAAATGAA AACCACCAA TCCCTGTGC	1980
TACCAAAGGA AGATAAGAGA ATACGCGAAA GACATAGGTC GATAAAATCA TCCCAGCCAT	2040
AGGAAAGGTT GCCATTCTG ACAAAGAGG GGGCTTGGTC AATCTTGCT TGGTTCTTT	2100
CCAATTAAAG AGATGCAGAA TTAGAAAGTA AATCCATAAA ACCAAACCAA TCAGACTAAA	2160
AAGATGGGAT AGAACCGGCA ACGTATCTAA AATAAGATTT CCAGCTCTG CCAAACCTAG	2220
CAAACAACCT GAAAATACTA AGGGGAGTTT TTTCATCCTA ACCTCCAATA ATCATGTTAG	2280
TTTCAGTATA ACATAAAAGC GCTTAAATGA GGATTTAAAA AAACGAGTCC GCTTATTTCA	2340
GACTTCATTT TACTCAGATA TGAATTAGGC ATAAGGTTGC AATCTGGAT TAATTGGTGT	2400
ATTAGCTAAG TTGTTGGCAT AGTTACAGAG GATTGCTAGG CTGACACCAA AAACCACATC	2460
CAAGGCATTT TGTGAGTGT AGCCAGCTTC TAAAACTCA GACAAGGCTT CATCTCCTAC	2520
ACGACCCCTG GTATTGATAA CTGCCAAGGT AAAGTTAGCT AGGGTATCCA ATTTAGGATC	2580
TGTTTCAATT GGAGTACGAT TCGAAGAGC TTGAATCAAG TCATCATTCA TCTGGATTTG	2640
TTTGATGGAA AAGGCTGTGT GACCTGCGAC ACAGAAGGCA CAACCATTTG TCACGGCTGC	2700
CGTGATTTGC ACCACTTCAC GCTCAACGGG TGTCAGGCTG TTGCGACGGT GGATAGATGA	2760
GACAATTTGC TAGGCTTCTA AAACAGTCGG GCCATTGGCC AAGAGACCGA TTAGGTTGGG	2820
AATATAGCCA TTGTTGTCTT TTTCTACTGT TTCAAGAATT TCTTTCACTT CTGCTGGTGC	2880
TGACTCTACT GTATCGATAG TAAATGTTGT CATAAGATAC CTCTTTTCTT ATTATTGACA	2940
CTAATATTAT TGGAAAATCT TATAAAATCC TGATTCCTAA GTTTATCTAA GATAAAGCTT	3000
TATTCTCTCA TAAGATTTTC GTTGTTATAT TAGTTTATCA CACTTCCAAT CACTTGTATA	3060
ATATATATTA TATATCAGGC TGATAAAAT TATTTATAGG CAAAAAATC ACACGAGCTG	3120
TGTGATTCCA TTATTTGTCA AAATACTTTT TAGTTTCAGC AATAACGACT GGCGACAAGA	3180
CCAAGAGGGC AATCAAGTTT GGCAGAGCCA TCAAGGCGTT AACGATATCT GCGATAATCC	3240
AGACCATATC CAACTCGATA AATCCTCCTA ACAAGACCAT GAGCACAAAA ACCACACGGT	3300
AGAGCCAGAT AAAGCGAACC CCAAAGAGGA ACTCAAAACA GCGTTCTCCG TAATAGTTCC	3360
AACCTAGAAT CGTTGTAAAG GCAAAAAGTA CAAGGAAGAT GGTCAAGAGA GCAGGCCCAA	3420
AGTGTGAAAA GTTTGTTGAG AAAGCTGACT GAGTCAAGGC AACCCCATTC AAGTCACCGC	3480
TCCAAACTCC AGTTACCAAG ATGGTCAAAC CAGTTAGAGT A	3521

(2) INFORMATION FOR SEQ ID NO: 119:

845

- (i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 1968 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 119:

AACCTGGGCA AGCAAGCTAA AAGCAATGGG ACCTGGAATC CTAATGGCAA CTGCCGCTGT	60
TGGAGGTTC CACATTGTAT CCTCAACTCA AGCTGGCGGT TCTTACGGTT GGTCTCTACT	120
TCTCTTGGTC ATCTTAGCCA ATGTCTTTAA ATATCCATTT TTCCGTTTTG GTGCTGAATA	180
CACAGCTGAT ACTGGAAAGA CTTTGGTTGA AGGTTATGCC GAAAAAGGAA AACTCTATCT	240
CTGGATTTTC TTTATCCTCA ATGTCTTTTC GGCTATGGTC AACACGGCTG GTGTTGCCAT	300
TCTGTGCTCA GCTATCATCG CCAGTGCCTT CCCAATGATT GGACTTAGCA TTA CT CAGTG	360
GTCCCTCATT CTCGTTGCAA TCATTTGGGC TATGCTACTC TTTGGAGGCT ACAAACTTTT	420
AGACGGCATG GTCAAATGGA TTATGTCTGC CTTAACCATT GCGACTGTTT TTGCAGTTAT	480
CATTGCGGCG GTCAAGCATC CAGAATACAG TTCTGATTTT GTCGAGAAGA CACCTTGGCA	540
AATGGCAGCT CTGCCCTTCA TCGTCTCCCT CCTAGGATGG ATGCCGGCTC CTATTGAAAT	600
TTGAGCCATC AATTCACTTT GGTGAGCTGA AAAGAGAAAG ACCGTCAACT TTAACACAGA	660
AGACGCTCTG TTTGACTTTA ACACTGGTTA TATTGGAACA GCTATCCTAG CCGTCTCTTT	720
TGTGGCACTG GGAGCACTGA TTCAGTATCC TACAGGGCAG GCGGTTGAAG CTGCTTCAGC	780
CAAATACATC TCTCAATTCTG TGGGCATGTA TGCCTCTGTT CTTGGCGAAT GGTCCCGTTA	840
CTTGATTACC TTTATTGCCT TCCTCTGTAT CTTTGAACA GTTATAACTG TTATCGATGG	900
CTATTCTCGC GTTAATCAGG AATCTCTCCG ACTGCTAATC AGTCAAAAAG AGGACAATCG	960
TAAATCTTTG AACATCTGGA TGACCATCAC TGCTATCATC GGTATCGTCA TTATCAAGTT	1020
CTTCGCTGGT CAGGTTTCAA CCATGCTCCG CTTTGCCATG ATTGGCTCTT TCCTGACAAC	1080
ACCTTTCTTT GCTCTTTTGA ATTACGCCTT GGTAACGCGT GAAAACAAAA ATCTTCCTTC	1140
TTGGCTCAAA CACCTTGCCA TTGCGGGATT GATTTTCCTC TTTGCTTCGC CATCTTCTTT	1200
ATCTACGCAC TCGCAATCGG AAAAGCAGGG TAAGGGACAA GCGCGAGATG AAGATAAGGT	1260
TTCAATTTCAA GAGAAAATTC AGCAAATATT TCTATGATAA AAAGCATAAG AACAAGGTTT	1320
TGAAGACCTG AACTTATGCT TTTTACGTT CTAAAGACT GTTTATACTC AAAAAACAGT	1380
TGAACAACCT CAACCACCTC TTATAAGAAC TTTATACTAT TCGAGAATCT CTTCAAACCA	1440

846

CGTCAGCTCT ATCTGCAACC TCAAAGCTGT GCTTTGAGCA ACCTGCGACT AGCTTCCTAG	1500
TTTGCTCTTT GATTTTCATT GAGTATTAAT TCTCCTTTTC CAACTCATAC AAATCTGCGA	1560
TAATAGCTGC GACATGTTTG ATATCTTCCA GCATGCCTCG CATTTCAAAG TCAGCCAATA	1620
CAGGGAAGCC AAAGCGTTGA CTGTATTGCT TGGCTGTTAG GCAGTATTGG TTATTAAAGT	1680
TACGATTTCC TGACCCAACC ACACCAAAC ACTTACTAGC ATTGTTACCA TAGGCAATAA	1740
AATCTCCAC CGGTGTCGTC AAAATCTCAA CATCTCCGTT ATCCACGCCA TTCCACCTT	1800
CGAGATAGGT CGGCAAAAAA GCGACATAGG GATGGTCCAT TTCATAGAAA TTTTGCCTT	1860
CCTTGACCAA ATCCTTGATA TGAATCTTTT GAACCTCAAT CCCTTTGTAC TGGGACAAGA	1920
GATAGTCTTT CAAGCGCGTC ACAAACCTTT CAGTGTGCCC ACTCAAGG	1968

(2) INFORMATION FOR SEQ ID NO: 120:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 7172 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 120:

CCGCATTTTT TATCACTAGA CTCGAGACAT CTTTGAGTG GCTCTTGCTC TCTGGTTTAA	60
TTTTCTTCCT TGCTCAAGGA CTCCTGCTAT TTCTCTGGT CGTCCGACTC AAACATCAAT	120
TCGCTGAGAT TTATCCTCAA ATCAATAAAA AGATTGCTT CTAATTTTA GGGGTTCTCA	180
CCATTGATTT TCTATTTTTT GTTCTCTTAG CCTTCATTAG TTCTCAGCGT TTTTCATCTC	240
TTATGCCAAT CATCACTGCT TGCCATTCTA CTTTTATTA TATGACAGCT GACTACCTAA	300
GAGAAACTA TCCAGACTTT TACGACAAAC ACATCTCTTT ATGGGAGTGT CTCTAAAGAA	360
AAGGAGGTTT TAGCATGAAA AAAATCATCT TCATCAAAAC CATTCAACTC CTTGTCATTG	420
ATGGAATCAT GCTGGCATT TTTGACATTA AAAGGGGGCT TACTTGGGAC TGGATTTTGA	480
TTTATAGCGG TTGGCTCATT TTCTTTCATC CTGTGCTATT GACCTATCTT TCAAACCAAC	540
TTTGTGACCA CTTTAGTTAA CTCTATTCCC AGATTAGACC GAGATTCTGG CGTTTTGCTT	600
TACAAATTCT CCTATGGGAT AGCCTGATGA TTCTCTCCTT GGTGTCTTTA AGTGATATTC	660
CACTTTTCCT TCAGGGAAC CTCTCATCC TAGGACATCT CATCCCTTCC TATCGCATCT	720
GCCAAAGCCT GAAAAGAGAC TTCCCCAAG CATATCAAGA ACCGATTTCT TTTTGGAGTA	780
TTTTATGATA GATGAGAAAG ACCAAGCCGA CTGGGCTTGG TCTTCTTAT CTCTTTTAG	840
TATCTAGGAT AATGGTAACA GGTCCATTAT TAACCAGCTC AACCTGCATA TCTGCTCCAA	900

847

AGATGCCTGT CTGAACGGGC ACTTCTTGCG CTAATTTTGT ATTGAAAGCA TCATAGAAGT	960
CTGATGCCAT ATCAGGTTTA GCTGCCCCTG TAAAGgCTGG ACGATTGCCT CTCTTAGTAT	1020
CCGCAAAGAG GGTAAGCTGA GAAATAGAGA GGATTCTCTC TTCAATATCT TTGACAGACA	1080
GTTTCATCTT GCCTTCTGCG TCTGAAAAA TCCGCATATT GACCAGTTTT CTCACAGCAT	1140
AGTCCAAATC TTCCTCTTGG TCCTCTGGTC CAACACCAAC CAGCAATAAA AGTCCCTGAT	1200
TGATTTTTC CTGAATCTGG CCTTCTATAC TCACTGGGGC TTTTSTAACC CGTTGGATAA	1260
TGATTTTCAT AATAGCCTTT CTAGTAAGAG CTAGGACAAC TAGCCGTTGG TCCGTTTGAC	1320
AGAGTAACT TCTGGCACAC TCTTAATTTT ATCGACAACC GTGGTCAGTG TAGAGAGGTT	1380
GGCAATACCG AAGgACACAT GGATATTAGC AAACCTCATA TCCTTGGTTG GTTGGGCATT	1440
GACCGTTGAA ATATTCTTGG TTGTATTTGA AAGAACTTGC AGTACATCGT TCAACAGTCC	1500
TGTACGGTTG AGACCGTAGA TATCGATATG GGCCATATAC TCCTTATTTG AGCTAGGGTA	1560
CTGGTCTTCC CATTCCACAT CAAGGAGACG TTGCTCGTAG TTTTCTTGGG CACGCAGGTT	1620
CATACAGTCC ACACGGTGAA TAGCCACACC ACGACCCTTG GTAATGTAGC CAACAATATC	1680
GTCACCAGGC ACGGGGTAC AACACTTAGC AATCCGCACT AGGAGACCAG AAGCACCTTC	1740
AATAACCACT CCCCCCTCAT GCTTGACCTT GAGGGTTTCT TTATTTTCAA CCTTGACCTC	1800
GCCACCTTTG ACAAGCTCCT CTGCCTCAGC TTTGGCCTTG GCACGCTCTT CCTCACGGCG	1860
TTCTTTTCA GTCAGACGGT TAAAGACGGT AATCGCACCG ATTTCCCCAA AACCAATGCC	1920
CGCAAAGAGG GAGTCTTCTG TCTTGTAAGT GGTCTTTTGC AGAACTTGAT CCATGTGGCG	1980
CTTGTCATA AATTTATTTG CCACATAGCC ATTTTCTTGG AACTGAGCCA TCAGCATCTC	2040
ACGACCCTTG TTGACAGACA ATTCCTTATC TTGGTTTTTA AAGAACTGCC GAATCTTATT	2100
GCGCGCCTTG CTAGTCTTGA CCATATTGAG CCAGTCACGG CTAGGTCCAA AGGAGTTGGG	2160
GTTGGCGATA ATTTCAACCT GATCCCCTGT CTTTAACTTG GTTGTCAGTG GAACCATGCG	2220
GCCATTGACC TTGGCACCAG TTGCTTTTTC ACCGACCTTG GTATGGATTT CGTAGGCAAA	2280
ATCAATCGGT CCTGAATCTT TGGGAAGGGA ACGGACAGCT CCATCTGGGG TAAAAACGTA	2340
AATCTCCTCA GCCAAATAGT TTTCTTAAAC AGAGTCCACA AATTCCTTAG CATCATCAGC	2400
CTGGTCTTGG AGCTCCATCA TCTCCTTGAT CCAGTTCATT CCAATAGCTG ATTCCTTGCT	2460
GTTAACTTGC CCCTTTATAC CTTTCTTATA AGCCCAGTGA GCCGCAACCC CGTACTCAGC	2520
CACCTCGTGC ATTCCTTGG TTCGAATCTG GAATCAATC GGCCCTTTTG GTCCATAAAC	2580
AGTCGTATGG ATAGACTGAT AACCATTGGC CTTGCGGTTG GCGATATAGT CTTTGAAGCG	2640

848

ACCTGGCATC GGTTCCTCAA	ATTTCATGCAC GTAACCAAGC	ATGGCATAAA CATCACTTTG	2700
GGTATCTAAA ATACAACGAA	TAGCAATCAG ATCATAGATT	TCCTCAAACC GTTTCTCTT	2760
GTCCTGCATT TTGCGGAAAA	TTGAGTAAAT ATGCTTGGA	CGACCATAAA TCTTCCCTT	2820
CAAGTGACGT TCTGTCGTAT	ACTCCTCTAA TTTGTGACT	ACCTCATCCA CCAAGGCCTC	2880
ACGCTCCCTG CGCTTTCTCT	TCATCATATG GGTAACTCTG	TAAACTCCG TTGGATTGAG	2940
ATAACGGAAA GACAAGTCTT	CTAATTCCCA TTTGACACTG	GAAATCCCCA AACGATGGGC	3000
AAGCGGGGCA TAGATTTCCT	TGGTTTCTTT GGAAATACGC	TCCTGCTTGT CTTTTCGAAG	3060
ATGTTTCAGG GTCCGCATAT	TGTGCAAGCG GTCAGACAGT	TTGACCAAAA TAACGCGGAT	3120
GTCCTCAGAC ATGGCCATGA	GCATCTTGCG ATGATTTTCC	GCTAATTGCT CCTCGATCGA	3180
TTTGTACTCG ACCTTGCCAA	GCTTGGAAC TCCGTCAACA	ATCATCCGCA CATCAGGACC	3240
AAACTCTCTT TCCAAATCGT	CCAAAGTCGC ATCTGTATCT	TCCACCACAT CATGCAAGAA	3300
TCCACAAGCT ACTGTTACAG	CATCCAGCTT TAGCTTAGCT	AAAATACCTG CCACTTGGAT	3360
AGGTGAATG ATATAAGGCT	CGCCTGATTT GCGATATTGA	CCACTGTGGC ATTCAACAGC	3420
ATAGACCAAG GCCTTATGGA	CAAAATGAAC ATCCTCTTCC	GTAAATATT CTTTGGTTAA	3480
AGCGACAACT TCTTCGCCTG	TTAAATTCAC TTCTTTCGGC	ATCTCTACTC TCCAATCTT	3540
CCTACCATT TATCACTTTT	TTAAGAATAT GAAACTAGA	TTGGAACAGA ATAAGAAAA	3600
AATAATTCAA AATTGCTTGA	TAATTCTGAA TTATTGGTCC	GTAATATACT ACGAAGTTAG	3660
ATTTTAAACT TAGGTGATAG	AAGGAGAGAT AGAAGAACGG	AAACCATATT GTAACCCAAA	3720
GACTTTCTGA CTTCCCCAAT	TCCATTGAAG ATACGAAAGA	TAAACGGTGG AACTCGTATC	3780
ACATACACTG GTACCTTGAC	TGGATTTTGG AATTAATACT	AAATGAAAAT CAAAGAGCAA	3840
ACTAGGAAAC TAGCCGCAGG	TACTCAAAG CACCGCTTTG	AGGTTGCAGA TAAAGTTGAC	3900
GCGGTTTGAA GAGATTTTGG	AAGAGTATAA AAATCCTCAA	GATACTTTCT TCTATCCTT	3960
AGTTTATAAG GAGAATACCT	ATGAAAAAAA CTGCTATTTT	TATCTTTGCT CTCCTAATGT	4020
TAGGAGTTTG CTGCCTGTTT	CTATTCAGCC AGCAAAGCTA	TAAAAAACAG TCGTTCAATA	4080
CTATGCTAAC GACCAGAACC	TGCCCAGTAG GATAACTTAT	AGTGAATATA GCGACAAATG	4140
AGAAGCCAAC TACGGTAGCA	CTCTAAACAT CACGTCTATC	AAACAAGCTA ATGACGGAGT	4200
TTATGCAACC TATGAAGGGC	AATTGACACC TTTCCAATAT	TGATAAATTG ATAACCAGCC	4260
TGTCTTCATC TAGTCATGCT	GGTTTTTAAG TTCATTTTAA	ATCCTTACCT ATTCTCCCTA	4320
ACTGTGCTAT ACTTAATTTA	TACTCAATGA AAATCAAAGA	GCAAACTAGA AAGCTAGCCG	4380
CAGGCTGTTT AAAGCACTGC	TTGAGGTTG CAGATAAAGT	TGACGCGGTT TGAAGAGATT	4440

TTCGAAGAGT	ATTAGTACAT	TCTTTGAGAT	TGGAGCTAGT	ATGAAAATCC	ATAAAACCGT	4500
GAATCCTGTT	GCCTATGAAA	ATACCTATTA	TCTAGAAGGC	GAAAAGCACC	TCATCGTCGT	4560
CGATCCTGGT	AGTCATTGGG	AAGCCATTCC	TCAGACAATC	GAGAAGATCA	ACAAACCGAT	4620
CTGTGCTATT	CTCTTGACCC	ACGCCCATT	TGACCATATC	ATGAGTCTGG	ACTTGGTTCC	4680
CGAGACGTTT	GGCAATCCTC	CTGTCTATAT	CGCAGAGAGC	GAAGCCAGCT	GGCTCTACAC	4740
TCCTGTGAT	AATCTCTCCG	GTCTCCCTCG	CCACGATGAT	ATGGCAGATG	TGGTCACAAA	4800
ACCTGCAGAA	CACACCTTTG	TCTTTCACGA	AGAATACCAA	CTAGAGGAAT	TTCGTTTTAA	4860
GGTTCTACCG	ACCCAGGGC	ACTCTATCCG	TGGTGTTC	CTAGTCTTTC	CTGATGCTCA	4920
TCTAGTCTTG	ACGGGAGATG	CTCTATCCG	CGAAACTATC	GGACGGACCG	ACCTCCGAC	4980
TGGTAGCATG	GAGCAACTCC	TTCATAGTAT	CCAGACCCAA	CTCTTCACCC	TACCAAACTA	5040
CGATGTCTAT	CCAGGACATG	GTCCAGCTAC	TACTATCGCT	CACGAAAAGG	CCTTCAATCC	5100
CTTTTCTAG	CAAGATGATG	ACAATCGAAA	TTTAAGTAAA	CTATCCAGCA	AATCTTTCTA	5160
TTACAAAAGG	CATCCTATCA	AGGTTTTCAC	ACATGATTGG	ATGCCTTTTT	TCTGATGACT	5220
AGATTTTTTG	CATTACCAA	TAATCACGCG	CTCCTCTGGT	GAACGCCACA	TTCCGTCTCC	5280
TTCTTTGACA	TCATAGGTTG	TAAAGAAATC	GTCGAAGTTT	GGTACTTGCA	CATTGACACG	5340
GAGTTTGGCT	GGTGGTGCA	CATCGACGCT	AGCCAAAAGT	TTCATAAATT	CTGGTCGACC	5400
TTTCATGCGC	CAGATGCGAC	CGAAGTTGTA	GAAGAACTCT	TCTGCTGAGA	AGTCTGCTTC	5460
TCTCTTAGCT	GCTTCAAGCG	CTGCTGCGAT	TCCTCCCAAG	TCAGCCACGT	TTTCTGATAC	5520
AGTCAATTTA	CCGTTAATGG	TTGCTCCATA	AGAATCCTGT	CCATCAAATT	GGTCAATGAC	5580
TTTTTGTT	TTCTCCTTGA	AGGCAGCATA	GTCGCTCTCT	GTCCACCAAT	CCTTGAGGCT	5640
ACCATTTTCG	TCAAAGGAAG	CCCCGTTAGT	ATCAAAGGCG	TGGGAAATTT	CATGGGCAAT	5700
CACTGCCCCA	ATACCACCGT	AGTTAGCAGA	AGATGACTGA	TGCAAGTCAT	AGAAAGGCGC	5760
CTGTAAAATG	GCCGCTGGAA	AGACAATCAG	GTTCTTCTGA	GGATTGTAGT	AGGCATTGAC	5820
CATATGAGCA	GGCATGCCCC	ATTCCTTATA	ATCTACAGGC	TGGTTCCACT	TACTCCAAC	5880
GTGCTTGATT	TCCACACGCG	CAAAGGCTAG	AGCATTCTCA	AAAAGACTGG	CAGTTTCATT	5940
CACTACCTTA	TCCTTGTAAC	GTGCAGGCAA	TTCTTCTGGA	TAGCCAATAT	AAGGTTTGAT	6000
CACATTGAGC	TTACGATAG	CCTGTTTACA	GGTTTCTGGA	GTGAGCCAGT	CATTCTTAAG	6060
CAGACGCTCC	TTATAAACAT	CAATCATGGT	TGCCACTTTT	TTCTCCACAT	CCGCCTGGC	6120
TTCTGGAGAG	AACTTCTCAC	GGCGTACCA	AAGACCCAGG	GCTTGCTTGA	AAGGTTCTTG	6180

850

TGCTAGATGA TAAGCTGCTT TGACCTTATC TTTTGCCTCT GGAAGTCCAG AAAGGGCACG	6240
GCTGTAGGCA CCAGACAAAA CACGGATATC CTCTGTTAAA TAGCTGGTTG AAAGATTGAC	6300
AACACTCAAA ATCAAGGTTG CTTTAAGGAG AGACCAGGCT TCCTCACTGT AGAATTGCTC	6360
TGCTGCTTGC CAGAAACGTT CCTCGTCTAC AATAACCTTG TCTGGTAATT GCCCAATAAC	6420
TGCTTTGAAG AAGTCATCCA AAGGTAGGGC AGGCGCGAAT TTCTTGAAAT CTTCTGTAAGA	6480
ATATGGATGA TAGAGTTTAG CATATTCTGA ACTTTCTTCA TTAGAGAGCA CCACTGCCGC	6540
AACTCGGCGG TCCAATTCAA GTCTTTTTTC TAGCAAGTCT TCAATTTCTT CATCAGAGAA	6600
ATCATAAGCC TTGAGGAGAT TTGCGCTGCT TTCTTTCCAA AGAGTCAAGA GCTCTTCGCG	6660
CTGAGGATGT TCTTCTGCAT AGTAGGTCGT ATCTGGCAAG ATTGTGCTTG GAGCGCTAGC	6720
CCATAGAACA TTGATTCTAG CATCCATAAA GTCTGGCGAT ACACCAAAG GAAGGAAGTT	6780
TGGTTTTCTT GCAAGCTCAA ACTCTGCTAG TTTAGCTGTA AAATCCGCAA AAGTCTCCAA	6840
TTCTTGGAAT TCTTTAAGGA GTGGTAAGAC AGGTGTGATA CCGTCAGCTT CTCTCTTGTC	6900
AAAATCACGA ACTAGGCGGT GGTATTTGAC AAAGTTTTCC AAGATAGCAT CCTCAGGCAC	6960
TTCTTCACCT GCTAACCCT TGTCTGTGTG CGCCAGCATC AGGTCTTCAA TTTCCTGGTC	7020
TAAATCAACA AAACCTCCTG TTTGAGACTT ATCTGCTGGG ATTTTCAGCTG TCTGTTGCCA	7080
TTCTCCATTG ATAGCATCAT AAAATCATC TTGATAACGT GTCATCTTGT TCTCGCTTTC	7140
ATTTGTATTT GCATTTATCT TAACAAAAAT CG	7172

(2) INFORMATION FOR SEQ ID NO: 121:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 4518 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 121:

CGGGAAGTTA TGCGATCTAG ACTTCGTTCC TGTACAGCTA CTTTCTCAGG TGGTCTTGTT	60
GTTTGTATGA GTTTGTTTAG AGAGGATCTT TCTATGTCTT TCTTTCTTAT TTTTGTTTTA	120
TATGCTTTTC TGATTTCTTA TCTAATTTAT GGTATTTCA GACTAAAAAG GAAATACCGA	180
GTAGATGAAT AGCAAGGTTT TAGGTCTTCA GATTGATTTT TAGCACTCTT GATAAAAGAG	240
TGCTAATTTT TTGAGTTTTT GTCTTGACAT TCTCTTCTAA GGGTGTATAA TAGAATCATG	300
AGTTAGCACT TGGATGCATT GAGTGCTAAT TGATCAGACA GAGAGGAGTG ATGAGATGGT	360
TACAGAGCGT CAGCAGGATA TTTTAAATCT GATTATTGAC ATCTTTACCA AAACGCACGA	420

851

ACCTGTCGGA TCAAAAGCCT TGCAAGAGTC TATTAAGTCT AGCAGTGCAA CCATTCGTAA	480
TGACATGGCG GAACTAGAAA AACAAGGGTT GCTTGAGAAG GCTCATACTT CAAGTGGTCG	540
GATGCCAAGT GTTGCTGGTT TTCAGTACTA TGTGAAACAC TCACTGGATT TTGACCGGCT	600
GGCTGAAAAT GAGGTATATG AGATTGTCAA AGCCTTTGAT CAGGAATTCT TCAAATTGGA	660
GGATATTCTG CAAGAGGCTG CTAACCTACT AACAGACCTG AGTGGCTGTA CGGTAGTGCC	720
ACTGGATGTT GAGCCGAGCA GGCAACGTTT GACAGCCTTT GATATCGTTG TTTTGGGGCA	780
ACATACAGCC TTGGCGGTAT TTACCCTAGA CGAGTCGCGA ACGGTTACTA GTCAGTTTCT	840
GATTCCAAGG AACTTCTTGC AGGAGGATTT GCTGAAACTG AAGAGCATCA TTCAGGAACG	900
TTTCCTCGGT CACACCGTTT TAGATATTCA CTACAAGATT CGGACGGAGA TTCCGCAGAT	960
TATCCAGCGT TACTTTACAA CAACGGATAA TGTATCGAT CTCTTTGAAC ACATCTTTAA	1020
GGAAATGTTT AACGAAAACA TTGTGATGGC GGGCAAGGTC CATCTCTTGA ATTTTGCCAA	1080
TCTAGCAGCC TATCAGTTCT TTGACCAACC GCAAAAGGTG GCCTTGAGAG TTCGTGAGGG	1140
GTTGCGTGAG GATCAGATGC AAAATGTTTCG TGTTCAGAC GGTCAGAGT CCTGTTTAGC	1200
TGACCTAGCG GTAATCAGTA GTAAGTTCCT CATTCCTTAT CGGGGAGTTG GAATTCTAGC	1260
CATTATCGGT CCAGTTAATC TGGATTACCA ACAGCTAATC AATCAAGTCA ATGTGGTCAA	1320
CCGTGTTTTC ACCATGAAGT TGACAGATTT TTACCGCTAC CTCAGCAGTA ATCATTACGA	1380
AGTACATTAA GATTGAAATC ATTAAAGGAG GCGAACATGG CCCAAGATAT AAAAAATGAA	1440
GAAGTAGAAG AAGTTCAAGA AGAGGAAGTT GTGAAAACAG CTGAAGAAAC AACTCCTGAA	1500
AAGTCTGAGT TGGACTTGGC AAATGAACGT GCAGATGAGT TCGAAAACAA ATATCTTCGC	1560
GCTCATGCAG AAATGCAAAA TATCCAACGC CGTGCCAATG AAGAACGTCA AACTTGCAA	1620
CGTTATCGTA GCCAGGACTT GGCAAAAGCA ATCTTACCAT CTCTTGACAA CCTTGAGCGT	1680
GCACTTGCAG TTGAAGGTTT GACAGATGAT GTGAAGAAGG GCTTGGGGAT GGTGCAAGAA	1740
AGCTTGATTC ACGCTTTGAA AGAAGAAGGA ATTGAAGAAA TCGCAGCAGA TGGCGAATTT	1800
GACCATAACT ACCATATGGC CATCCAACT CTCCCAGCAG ACGATGAACA CCCAGTAGAT	1860
ACCATCGCTC AAGTCTTTCA AAAAGGCTAC AACTCCATG ACCGCATCCT ACGCCCAGCA	1920
ATGGTAGTGG TGTATAACTA AGATATAAAG CCCGTAAAAA GCTCGCAGTA AAAATAGGAG	1980
ATTGACGAAG TGTTTCGATG ACACAAGAAA ATCTATCTTT TTTACTCAGA GCTTAGGGCG	2040
TGTTTCGATTC GGCAATTCTG ACGGTAGCTA AAGCAACTCG TCAGAAAACG GCAATCGCTA	2100
TGGCGTTTGC CTAGCTTCCT TACTAACTCG TCGTCGAAAT AAAATCGATT TCGACTCCTC	2160

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GTGTCGCAAT TTACATAATA GAAAACTTGT CCGAAACGAC AATAAACTAT GAAGAAAGAT	2220
AAAATATGTT TGGCTTTGTA ATAGTGAGCG AAGCGAACCA AACACGATAC TCTTCGCCGT	2280
GGCGCTATTT GCGCAAATTT TGAGACCTTA GGCTCAAAGT TTAGTCAAAG AGATTGACGA	2340
AGTCAAGCTC TGACGGCGTC GCCACTGTCT CCACTTAAGA AGAGTATCAA AAAGAAAAAT	2400
AGAAAAATTAA CTAACAAGGA GAAAAACACA TGTCTAAAAT TATCGGTATT GACTTAGGTA	2460
CAACAACTC AGCAGTTGCA GTTCTTGAAG GAACTGAAAG CAAAATCATC GCAAACCCAG	2520
AAGGAAACCG CACAACTCCA TCTGTAGTCT CATTCAAAAA CGGAGAAATC ATCGTTGGTG	2580
ATGCTGCAAA ACGTCAAGCA GTTACAAACC CAGATACAGT TATCTCTATC AAATCTAAGA	2640
TGGGAAC TTC TGA AAAAGTT TCTGCAAATG GAAAAGAATA CACTCCACAA GAAATCTCAG	2700
CTATGATCCT TCAATACTTG AAAGGCTACG CTGAAGACTA CCTTGGTGAG AAAGTAACCA	2760
AAGCTGTTAT CACAGTTCCG GCTTACTTCA ACGACGCTCA ACGTCAAGCA ACAAAGACG	2820
CTGGTAAAAT TGCTGGTCTT GAAGTAGAAC GTATTGTTAA CGAACCAACT GCAGCAGCTC	2880
TTGCTTATGG TTTGGACAAG ACTGACAAAG AAGAAAAAAT CTTGGTATTT GACCTTGGTG	2940
GTGGTACATT CGACGTCTCT ATCCTTGAAT TGGGTGACGG TGTCTTCGAC GTATTGTCAA	3000
CTGCAGGGGA CAACAACTT GGTGGTGACG ACTTTGACCA AAAAATCATT GACCACTTGG	3060
TAGCAGAATT CAAGAAAGAA AACGGTATCG ACTTGTCTAC TGACAAGATG GCAATGCAAC	3120
GTTTGAAAGA TGCGGCTGAA AAAGCGAAGA AAGACCTTTC TGGTGTAAT TCAACACAAA	3180
TCAGCTTGCC ATTTATCACT GCAGGTGAGG CTGGACCTCT TCACTTGGA ATGACTTTGA	3240
CTCGTGCGAA ATTTGACGAT TTGACTCGTG ACCTTGTTGA ACGTACAAA GTTCCAGTTC	3300
GTCAAGCCCT TTCAGATGCA GGTTCGAGCT TGTCAGAAAT CGACGAAGTT ATCCTTGTTG	3360
GTGGTTCAAC TCGTATCCCT GCCGTGTTG AAGCTGTTAA AGCTGAACT GGTAAAGAAC	3420
CAACAAATC AGTAAACCCT GATGAAGTAG TTGCTATGGG TCGGGCTATC CAAGGTGGTG	3480
TGATTACTGG TGATGTCAAG GACGTTGTCC TTCTTGATGT AACGCCATTG TCACTTGGTA	3540
TCGAAACAAT GGGTGGAGTA TTTACAAAAC TTATCGATCG CAACACTACA ATCCCAACAT	3600
CTAAATCACA AGTCTTCTCA ACAGCAGCAG ACAACCAACC AGCCGTTGAT ATCCACGTTT	3660
TTCAAGGTGA ACGCCCAATG GCAGCAGATA ACAAGACTCT TGGACGCTTC CAATTGACTG	3720
ATATCCCAGC TGCACCTCGT GGAATTCCTC AAATCGAAGT AACATTTGAC ATCGACAAGA	3780
ACGGTATCGT GTCTGTTAAG GCCAAAGACC TTGGAATCA AAAAGAACA ACTATTGTCA	3840
TCCAATCGAA CTCAGGTTTG ACTGACGAAG AAATCGACCG CATGATGAAA GATGCAGAAG	3900
CAAACGCTGA AGCCGATAAG AAACGTAAAG AAGAAGTAGA CCTTCGTAAT GAAGTAGACC	3960

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AAGCAATCTT TGC GACTGAA AAGACAATCA AGGAAACTGA AGGTAAAGGC TTCGACGCAG	4020
AACGTGACGC TGCCCAAGCT GCCCTTGATG ACCTTAAGAA AGCTCAAGAA GACAACAAC	4080
TGGACGACAT GAAAACAAA CTTGAAGCAT TGAACGAAAA AGCTCAAGGA CTTGCTGTTA	4140
AACTCTACGA ACAAGCCGCA GCAGCGCAAC AAGCTCAAGA AGGAGCAGAA GGCGCACAAG	4200
CAACAGGGAA CGCAGGCGAT GACGTCGTAG ACGGAGAGTT TACGGAAAAG TAAGATGAGT	4260
GTATTGGATG AAGAGTATCT AAAAAATACA CGAAAAGTTT ATAATGATTT TTGTAATCAA	4320
GCTGATAACT ATAGAACATC AAAAGATTTT ATTGATAATA TTCCAATAGA ATATTTAGCT	4380
AGATATAGAG AATTATATTA GCTGAACATG ATAGTTGTAT CAAAAATGAT GAAGCGGTAA	4440
GGAATTTTGT TACCTCAGTA TTGTTGTCTG CATTTGTATC GGCGATGGTA CCGTATCTGA	4500
CGAACGTTCA GCTTATAT	4518

(2) INFORMATION FOR SEQ ID NO: 122:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 8145 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 122:

TGCTATTTTC GATTCCCTTG GGCGTTTGA TTGCCTTTGC CTTGCAAGTC CATTGGAAGC	60
CCCTCCATTA TCTGATTAAC ATTTACATCT GGGTTATGCG AGGAACCCCC TTA CTCTTGC	120
AACTGATTTT TATCTATTAT GTGCTCCCAA GTATTGGGAT TCGTTTAGAC CGCCTTCCTG	180
CAGCTATTAT TGCCTTTGTT CTCAACTATG CAGCTTACTT TGCAGAAATT TTCCGTGGGG	240
GAATTGACAC TATTCCAAGA GGACAGTATG AGGCCGCCAA GGTCTTGAAG TTTAGCCCTT	300
TTGACAGAGT GCGCTATATT ATCTTGCCCC AAGTGACCAA GATCGTTCTT CCTAGTGTCT	360
TTAATGAAGT TATGAGTTTG GTCAAGGATA CTTCTTTGGT CTATGCTCTC GGAATTTTCA	420
ACCTTATCTT GGCTAGTCGA ACAGCTGCTA ACCGCGATGC TAGTCTAGTT CCTATGTTCT	480
TGGCAGGAGC CATTTATTTG ATTTTGATTG GGATTGTGAC AATTATTTCC AAAAAAGTTG	540
AGAAGAAGTA TAGTTATTAT AGATAGGAGG CTGCCATGTT AGAATTACGA AATATCAATA	600
AAGTCTTTGG AGACAAACAA ATCCTGTCTA ATTTTCACTT AAGTATTCCT GAAAAGCAAA	660
TCCTGGCTAT CGTTGGACCT TCTGGTGGAG GTAAGACAAC TCTTTTACGT ATGCTTGCAG	720
GTCTTGAAAC CATTGATTCA GGGCAAATCT TTTATAATGG ACAACCTTTA GAGCTGGATG	780

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AATTGCAGAA GCGCAATCTA CTGGGATTTG TCTTCCAAGA TTTTCAACTA TTTCCTCATC	840
TATCAGTTCT GGAAAATTTG ACTTTATCGC CTGTGAAGAC CATGGGAATG AAGCAGGAAG	900
AGGCTGAGAA GAAGGCGAGT GGACTCTTGG AACAGTTAGG ACTAGGAGGA CACGCAGAGG	960
CCTATCCTTT CTCACTATCT GGTGGGCAAA AGCAGCGGGT GGCTTTGGCG CGTGCTATGA	1020
TGATTGACCC AGAAATCATT GGCTACGATG AACCAACTTC TGCCCTGGAT CCAGAATTAC	1080
GTTTGGAAGT GGAGAAGCTA ATCTTGCAAA ATAGGGAAC TGGGATGACC CAGATTGTGG	1140
TTACCCATGA TTTGCAGTTT GCTGAAAATA TCGCAGATGT ATTATTGAAA GTAGAACCTA	1200
AATAGGAGGA AAAATGGATG AAAAAATGGA TGCTTGTATT AGTCAGTCTG ATGACTGCTT	1260
TGTTCTTAGT AGCTTGTGGG AAAAATCTA GCGAACTAG TGGAGATAAT TGGTCAAAGT	1320
ACCAGTCTAA CAAGTCTATT ACTATTGGAT TTGATAGTAC TTTTGTTCCA ATGGGATTTG	1380
CTCAGAAAGA TGGTTCTTAT GCAGGATTTG ATATTGATTT AGCTACAGCT GTTTTTGAAA	1440
AATACGGAAT CACGGTAAAT TGGCAACCGA TTGATTGGGA TTTGAAAGAA GCTGAATTGA	1500
CAAAAGGAAC GATTGATCTG ATTTGGAATG GCTATTCCGC TACAGACGAA CGCCGTGAAA	1560
AGGTGGCTTT CAGTAACTCA TATATGAAGA ATGAGCAGGT ATTGGTTACG AAGAAATCAT	1620
CTGGTATCAC GACTGCAAAG GATATGACTG GAAAGACATT AGGAGCTCAA GCTGGTTCAT	1680
CTGGTTATGC GGACTTTGAA GCAAATCCAG AAATTTTGAA GAATATTGTC GCTAATAAGG	1740
AAGCGAATCA ATACCAAACC TTTAATGAAG CCTTGATTGA TTTGAAAAC GATCGAATTG	1800
ATGGTCTATT GATTGACCGT GTCTATGCAA ACTATTATTT AGAAGCAGAA GGTGTTTAA	1860
ACGATTATAA TGTCTTTACA GTTGGACTAG AAACAGAAGC TTTTGCGGTT GGAGCCCGTA	1920
AGGAAGATAC AAAC TTGGTT AAGAAGATAA ATGAAGCTTT TTCTAGTCTT TACAAGGACC	1980
GCAAGTTCCA AGAAATCAGC CAAAAATGGT TTGGAGAAGA TG TAGCAACC AAAGAAGTAA	2040
AAGAAGGACA GTAAGATAA ATAGTGGCTG AAAC TCGCTT TGATTAGCA AAACGTAGTT	2100
TTTTTTGTAA TCTAGGAAAA CGATAATAGC GATTGAATAT GGATAATTGA ATATGGAATA	2160
GCCCACTGTG ATTTCTAAAA CATGTTTAAA AATTGATTTG ACTTCCAAAA TAAAAATGTT	2220
CTGTAATGAA ATACTGATGT AACTGTTTTA GGAACAATAA AACGCATAAT ATCAAGGTTT	2280
TTGCACCTTA CATTATGCGT TTTTGTGATT TTAAGACTTG TTAGCTGATT TTTTACAATC	2340
CTGCGAAATC TTTGATTTCT TGTGCTGACA TTGAAGAGTC GCAACGGACG TTGATTGTGC	2400
CATCTGTAAT ATGAACAAAA CCTGGTACAG TTGGGATTC ATAGCGTGAG CGGAATGCTT	2460
GCAAATCATT GAGTTGGCTT GGTCTTCAC TATTGATGAA GTAAATGTGA GCTTTGGTTT	2520
CAGCTACGAC ACCTGACAAT GTACCTGCAA ATTTACGGCA GTAAGGGCAA GTTTTGGCAG	2580

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CGATAAAGAA GGTTCAGTT TCTTTTTTAT CAAGAGCTTC TTGCGCACGC ACAACTGTAG	2640
TGACTTCAAG GTCTTTGATG TTATCTAAAA ATTGTTCCAT GAGATTACCT CGCTTTCATT	2700
GATAAGTCTA GTATGCCATA AAGTTTCTAA AATTGCTTAG ATTTGATACG AAAAAAGATG	2760
AGGTTGGTTG GTCTCATCTT TTATAGGTCT TTATTTTACA AATGCATTGA TTTCTGCTTC	2820
GATGTTAGCA ATCTTAGCTT GTGATTCTTC GTTGGTTTCC CCTACAACTG CAATGTAGAA	2880
CTTGATTTTT GGTTCGTAC CTGAAGGGCG AACGGCAATC CATGAACCGT CAGCAAGTGT	2940
GTATTTCAAC ACATCACTTG GAGGAGTTGT CAAGTTTGTG ACAGTACCGT CAGCAACAGT	3000
AGCAGTTTGT GCCTTGAAGT CTTCTACGAC AGTGATAGCT GTTGCCTTCC ATTCTGTTGG	3060
AGCATTGTTG CGGAATTTAG CCATAATCGC TTTGATTTGT TCAGCACCAT CGACACCTGA	3120
AAGAGTAACA GAGATTGTTT TTTCTGCGTA GTAGCCATAT TCTTTATAGA TTTCTTCGAT	3180
ACCGTCAGCA AGTGTCAAAC CACGAGAACG GTAGTAGGCA GCAAGTTCAG CAACTACAAG	3240
AACGGCTTGG ATGGCATCTT TATCACGTAC AAATGGTTTA ATCAAGTAAC CGAAGCTTTC	3300
TTCAAATCCC ATCATGTAAG TGTGGTTGTG TTTTCTTCG AATTCTTGGA TTTTTCAGC	3360
GATAAATTTG AAACCTGTCA AGACGTTGAA CATAGTTGCG CCGTAGCTTT CAGCAATCTT	3420
CGTTACCAAG TCAGTTGAAA CGATAGATTG GCAGAGAGCG GCATTTTCAG GAAGAGTTCC	3480
AGCGTTTTTG TGAGCTTCCA AGATGTATTT AGCCATGATA GCACCGATTT GGTACCTGA	3540
AAGGTTGAGG TAGCTACCAT CTTTTTGAAG AACTTCAACA CCAACACGGT CAGCGTCTGG	3600
GTCAGTTGCG ACAAGAACAT CTGCACCAAC TTGACGACCA AGTTCTTCAG CAAGGGCAAA	3660
GGCTGCTTGG CTTTCTGGGT TTGAGATGT TACAGTTGAA AAGTCTGGGT CAGCAGTTGC	3720
TTGCGCTTCA ACAACTTGAA CAGAGTCAAA TCCTGCTTGG GCAAGAGCAC GACGAGCCAA	3780
CATTTACCA GTACCATGAA GTGGTGTGTA GACAATCTTC ATGTCTTTAC CAAATTCTTC	3840
AATCAAGGCT GGGTTGATGT TTATGTCCTT AACCTCTTTA AGGTATTCTA TGTCAACAGC	3900
TTGCGCGATA ACTTCAATCA AGCCAGAAGC TTTTTCAGTT TCCACATCAG CAACTTCAAC	3960
TGCAAATGGG TTTTCGATTG CACGGATATA AGTAGTCAAA GCGTCCGCAT CGTGTGGAGG	4020
CATTTGTCCA CCGTCTTCAC CGTAAACCTT GTAACCGTTA AATGGAGCAG GGTGTGGCT	4080
GGCTGTGACC ATGATACCTG CGAAACAGTT GAGATGACGA ACTGCAAATG ATAGTTCTGG	4140
AGTCGGACGA AGGCTTTCAA ATACGTAAGA TTTGATGCCG TGTTTAGCAA GAACTGCCGC	4200
AGATTCAAAG GCAAACCTCAG GTGAGAAGTG ACGGCTATCG TAGGCAATTG CTACACCGCG	4260
TTCTTTCTCG TTTCCACCTT TTGACTCAAT CAAACGAGCC AATCCTTCAG TAGCTTGGCG	4320

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AACAACGTAG ATGTTGATAC GGTTCGTACC AGCACCAACC AAGCCACGCA TACCTGCAGT	4380
ACCAAATTCA AGATTTGTAT AGAAGGCATC TTCCTTAGTT TTTTCGTCCA TATTTTCCAA	4440
ATCTTGACGA AGGTAGTCAC GAAGCTCCAC AAAATCAACC CATTTCTGGT AATTTCTTG	4500
GTAAGACATT CAAATTCTCC TTTATTTTAA AAACATTAA TCAGTTAAT TATATCATTT	4560
TTTTTAGTTT TAGTAAACC TTATCTGCTT CGAACATCTC TTCAAACCAG GTCAGATTGA	4620
ATTTTGGGGT TATATGATGT TGAGGCTAGG AAAAATTCAA TTTCAGTAAA AAAAGTAAGT	4680
CTTCTCATAA CAAACATTG ATATAGTTAC TTAGTTTTAA ACAAGCATAT TATAATAAAG	4740
CTATGGCATA TAGTACTGAT TTAAACAGC GAGCATTAGA TTACATCAAA GAGGGGCACA	4800
GCCATGTCGA GGCAGCCAAG TTTTTTGGTG TTGGCGTCAG AACTCTCTTC ACGTGGGAAA	4860
AGAAAGACGT GAACAAGAAC ACATAGAGAG GAAAAAGCGA GTCGTCAAAA ACCGAAAGAT	4920
TCCTTTAGAG GAATTGAAAG CCTTTGTAGA GGCTCATCCA GATGCTTTTT TACGGGAAAT	4980
TGCGGCACAT TTGATTGTG CTGTTCTTC AGTATGGGCA GCTTTAAAGC AGATTAAGGT	5040
CACTTTAAAA AAAGATGACG AGCTTTAAGG AACAAGACCC AGAAAAGTAG CCTTATTTCT	5100
TAAGAATTTT AATAGTTTAA AGCACCTAGC ACCTGTTTAT ATTGATGAAA CAGGAATCGA	5160
CCGCTATCTC TATCGTCCTT ATGCAGGGGC TCCTAGAGGG GAGAAAGTCT ATGAAAAGAT	5220
TAGCGGACGT CGTTTTGAGC GAACTTCAAT TGTTCAGGA CAAGTAGACG GAGAGTTTAT	5280
AGCTCCCATG ATTTACAAGA AAAGCATGAC AAGCGATTTT TTTGTGGAGT GGTTCAAAAC	5340
GCAACTCCTA CCTGCTTTGA AGACACCTCA TGTATTGTC ATGGGCAATG CTGGTTTTCA	5400
TCCCAAGAAC ATTTTGGATG AACTCTGCAT CCAAGATAAA CACTTTTTCT TACCTCTACC	5460
ACCTTATTCA CCGGATTTGA ATCCTATTGA GCAAGCTTGG GCTATCTTGA AAAAGAAAGT	5520
GACGGATGTA TTAAGGGAAG TTCCAATAT TTTGAATGT TTGGAATGCT TTTTAAAAC	5580
TAGATGACTA TAACGGTTCT AAAGGAACCT ATCGAGTAGT CATTAAAACT AAGGATACTG	5640
CTGGTTAAGA GAAGACGTA TACAATCAAA CCATTCACCG TGTAGCCGAA ATCGTTCAGA	5700
ATGAAGACTT GTATCAGAAT GAAGACTTGT ATAAGAAAGG TTTGAATGTT GAACCTGCGC	5760
ACCAACAAAT TAAGGGATTT TTTGAAGCAG AGTTTAAAAA TCGTATTAAT GGAGTTCTTA	5820
ATACTAAAAT AAAAAATAGT ACATTAAATC GTGTAAATAA AAAAATAA CACCAGAGCA	5880
ACAAAACTC CATGATCAAT TTGAAGCAGA AGCAACGGAA GATGCTAAAA AACAAGGCGA	5940
TATTGTGTTG AATGTTGACC AGGATTTTAT GAGCATATCT AAGTCTAATA AAAGTGGTTC	6000
AGACTGGAAG AAAACTTTCA CAGTGAGGAT AACCAATAGG CTAGCAAATG ACTTGAATAA	6060
TGTCTTGAAA CAGGTTGATA AAGATACTCC TAATACCCCA ACTTGGCTAA ACTCAGCTGC	6120

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TTCTAAAGCT	AAAGATGATG	ACAGAGTATA	TAAACTACTG	AAGACTCTTA	TACCAGGAGA	6180
AAATTACCTA	TCATGTTAAG	GATAATCAGC	TAGAAGTAGA	AACAGATAAA	TACACATATA	6240
CTGCCGCTAG	AAATGGTAGT	AAGGAAGTTG	GTATTCAAGA	GTCAGATATA	GCAGCAACTC	6300
TAAGTGCCGA	TGAATATAAT	TCTAATCGCC	AACTTTTGA	GAGAGAATAC	AAATACAAAA	6360
GCAAATGCCC	TTAATAATGG	TTGGGCTAGA	TCTGGTCTG	AAGAGTTCAA	AAAGTTCTCC	6420
CACTTTGTAG	GGGTAGACAA	AGGGATTGTG	CGAACGAATG	TACTGACTGG	TAAAAAACTA	6480
TCTGATAAGA	TTAGGAAAGA	AGTGGGCTCT	GGAGATAGCA	AACTAGGAAA	AGGCGGCTAT	6540
TTCTCTACTG	GGGATGTTCT	ATTAGGAAAA	GATGTTGTTT	CTTATACCGT	ACAAGTATTT	6600
TCAGAGAATA	ATGAAAGAGT	AGGAGTAAAC	ACTCAAAGTC	ACCGTGTTCA	GTATAATCTC	6660
CCAATTCTAG	CTGACTTTTC	AGTCATCCAA	GATACTGTGG	AACCATCACG	AACCGTTGTT	6720
GAAAAATCA	TTCCAAAAC	AAATATTCCC	GAAGAAGAGA	AAGGGAAAAT	AACCGAAGAA	6780
ATCAAGAAAA	AGAAAAAAC	CTCAGAATTG	GCAGAACTAA	TCTCAGAAAA	TGTGAAAGTT	6840
CGCTATGTTG	ATGAACAAGG	GCGTTTGCTA	TCATTGAAAA	ATGATACTGG	AATTGGAGAA	6900
AAAGAAAGTG	ACGGAACCTA	CATTACCAAT	AAAAACAAC	TGATTGGTAC	CAGCTATAAT	6960
GTCACAGATA	AAAACTCAG	TAGCATGACT	ACTACTGACG	GAAAATATTA	TACTTTTAAA	7020
GAAGCAGATA	CAAATTCTGC	AAGTTTAACT	GGGAATATTG	TAAGCGAAGG	TAGAACAGTG	7080
ACCTTAGTTT	ATAGAGAAAG	CGAAGCGCCA	ACCACTGCTA	CAGTAACAGC	CAATTACTAT	7140
AAAGAAGGTA	GGCAAGAGAA	GTTGGTAGAG	TCTGTTATAA	AAGCTGATTT	AGCGATAGGT	7200
TCTGAGTATA	CCACAGAATC	AAAACTATT	GAAGGGAAAA	CAACAACTGA	GGACAAAGAA	7260
GACCGAGTTA	TCACAAGGAA	AACAACATAC	ACCTTGGTAG	CAACTCCTGA	AAATGCGTAC	7320
CAGAAGACGG	TGCAACAGTT	GACTATTACT	ACCGTGAGAA	TGTTGAGGAA	ACAGTGGTTC	7380
CCAAAACAGC	AACCTCTACT	GAGACGAAGA	CTATAACGCG	TATCATTCAT	TACGTTGATA	7440
AAGTTACGAA	CCAAAATGTA	AAAGAAGATG	TTGTTCAACC	TGTAACCTTA	AGCCGTACAA	7500
AAACTGAGAA	CAAGGTCACG	GGAGTTGTAA	CCTACGGTGA	ATGGACAACA	GGAACTGGG	7560
ACGAGGTTAT	ATCTGGTAAG	ATTGACAAGT	ACAAAGATCC	AGATATTCCA	ACAGTTGAAT	7620
CACAAGAAGT	TACGTCAGAC	TCTAGTGATA	AAGAAATAAC	GGTAAGGTAT	GACCGTTTAT	7680
CAACACCAGA	AAAACCAATC	CCACAACCAA	ATCCAGAGCA	TCCAAGTGTT	CCGACACCAA	7740
ACCCAGAACT	ACCAAATCAA	GAGACTCCAA	CACCAGATAA	ACCAACTCCA	GAACCAGGTA	7800
CTCCAAAAAC	TGAAACTCCA	GTGAATCCAG	ACCCAGAAGT	TCCGACTTAT	GAGACAGGTA	7860

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AGAGAGAGGA ATTGCCAAAC ACAGGTACAG AAGCTAATGC TACCTTGGCT AGTGCTGGTA	7920
TCATGACCTT GTTAGCTGGT CTAGGATTAG GATTTTTCAG GAAAAAGAA GATGAAAAAT	7980
AATAGATTTT AGAATCTAGG AACCAGGAAA AGCTCACAGA TGTGGGCTTT TTTCTGGTT	8040
TTGAGAACGA GGTCTTTCGT AAAGAATAAA AACGCTTACA AGTCTGTTGA ACTGGGAAAC	8100
TATGAATCCT ATTTTTTTAA AAATATTTC AGAAATCAGT TGCGG	8145

(2) INFORMATION FOR SEQ ID NO: 123:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 8697 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: double
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 123:

CGGTACCGGG AACGATACTT AGTCTAATT TGCACCTTTT CCATGTATGG TAAAGGTTTT	60
TCTTTTTTTA AAAAGGAAAA CGAGAAGAGG AGGTTCTTAT GAAAGCAAGC ATTGCCTTGC	120
AAGTTTACC CCTAGTACAG GGGATTGATC GGATAGCTGT TATTGATCAG GTCATTGCTT	180
ATCTGCAWAC TCAAGAAGTG ACGATGGTAG TGACACCATT TGAAACGGTC TTGGAAGGGG	240
AGTTTGATGA GCTTATGCGC ATTCTAAAAG AAGCGCTGGA AGTGGCAGGG CAGGAGGCAG	300
ACAATGTCTT TGCCAATGTC AAAATAAATG TAGGAGAGAT TTTAAGTATT GATGAGAAAC	360
TTGAGAAGTA TACTGAGACG ACACATTAGT CTATTGGGCT TTCTCGGAGT ATTGTCAATC	420
TGGCAGTTAG CAGGTTTTCT TAAACTTCTC CCCAAGTTTA TCCTGCCGAC ACCTCTTGAA	480
ATTCTCCAGC CCTTTGTTCT TGACAGAGAA TTTCTCTGGC ACCATAGCTG GGCGACCTTG	540
AGAGTGGCTT TACTGGGGCT GATTTTGGGA GTTTTGATTG CCTGTCTTAT GGCTGTGCTC	600
ATGGATAGTT TGACTTGGCT CAATGACCTG ATTTACCCTA TGATGGTGGT CATTGAGACC	660
ATTCCGACCA TTGCCATAGC TCCTATCCTG GTCTTGTGGC TAGGTTATGG GATTTTGCCC	720
AAGATTGTCT TGATTATCTT AACGACAACC TTTCCCATCA TCGTTAGTAT TTTGGACGGT	780
TTTAGGCATT GCGACAAGGA TATGCTGACC TTGTTTAGTC TGATGCGGGC CAAGCCTTGG	840
CAAATCCTGT GGCATTTTAA AATCCCAGTT AGCCTGCCTT ACTTTTATGC AGGTCTGAGG	900
GTCAGTGTCT CCTACGCCTT TATCACAACG GTGGTATCTG AGTGGTTGGG AGGTTTTGAA	960
GGTCTTGGTG TTTATATGAT TCAGTCTAAA AACTGTTC AGTATGATAC CATGTTTGCC	1020
ATTATTATTC TGGTGTGAT TATCAGTCTT TTGGGTATGA AGCTGGTCGA TATCAGTGAA	1080
AAATATGTGA TTAAATGGAA ACGTTCGTAG AATTAGAATG TTTCTGAAAA AGAAAAGAGG	1140

859

AAATCAAAAT GAAGAAAACA TGGAAAGTGT TTTTAACGCT TGTAACAGCT CTTGTAGCTG	1200
TTGTGCTTGT GGCCTGTGGT CAAGGAACTG CTTCTAAAGA CAACAAAGAG GCAGAACTTA	1260
AGAAGGTTGA CTTTATCCTA GACTGGACAC CAAATACCAA CCACACAGGG CTTTATGTTG	1320
CCAAGGAAAA AGGTTATTTT AAAGAAGCTG GAGTGGATGT TGATTTGAAA TTGCCACCAG	1380
AAGAAAGTTC TTCTGACTTG GTTATCAACG GAAAGGCACC ATTTGCAGTG TATTTCCAAG	1440
ACTACATGGC TAAGAAATTG GAAAAAGGAG CAGGAATCAC TGCCGTTGCA GCTATTGTTG	1500
AACACAATAC ATCAGGAATC ATCTCTCGTA AATCTGATAA TGTAAGCAGT CCAAAAGACT	1560
TGGTTGGTAA GAAATATGGG ACATGGAATG ACCCAACTGA ACTTGCTATG TTGAAAACCT	1620
TGGTAGAATC TCAAGGTGGA GACTTTGAGA AGGTTGAAAA AGTACCAAAT AACGACTCAA	1680
ACTCAATCAC ACCGATTGCC AATGGCGTCT TTGATACTGC TTGGATTAC TACGGTTGGG	1740
ATGGTATCCT TGCTAAATCT CAAGGTGTAG ATGCTAACTT CATGTACTTG AAAGACTATG	1800
TCAAGGAGTT TGACTIONAT TCACCAGTTA TCATCGCAAA CAACGACTAT CTGAAAGATA	1860
ACAAAGAAGA AGCTCGCAAA GTCATCCAAG CCATCAAAAA AGGCTACCAA TATGCCATGG	1920
AACATCCAGA AGAAGCTGCA GATATTCTCA TCAAGAATGC ACCTGAACTC AAGGAAAAAC	1980
GTGACTTTGT CATCGAATCT CAAAAATACT TGTCAAAAGA ATACGCAAGC GACAAGGAAA	2040
AATGGGGTCA ATTTGACGCA GCTCGCTGGA ATGCTTTCTA CAAATGGGAT AAAGAAAATG	2100
GTATCCTTAA AGAAGACTTG ACAGACAAAG GCTTCACCAA CGAATTTGTG AAATAATGAC	2160
AGAAATTAGA CTAGAGCACG TCAGTTATGC CTATGGTCAG GAGAGGATT TAGAGGATAT	2220
CAACCTACAG GTGACTTCAG GCGAAGTGGT TTCCATCCTA GGCCCAAGTG GTGTTGGA	2280
GACCACCCTC TTTAATCTAA TCGCTGGGAT TTTAGAAGTT CAGTCAGGGA GAATTGCTCT	2340
TGATGGTGAA GAAAATCCCA AGGGGCGCGT GAGTTATATG TTGCAAAAGG ATCTGCTCTT	2400
GGAGCACAAG ACGGTGCTTG GAAATATCAT TCTGCCCTC TTGATTCAA AGGTGGATAA	2460
GGCAGAAGCT ATTTCCCGAG CGGATAAAAT TCTTGCGACC TTCCAGCTGA CAGCTGTAAG	2520
AGACAAGTAT CCTCATGAAC TTAGCGGTGG GATGCGCCAG CGTGTAGCCT TACTCCGGAC	2580
CTACCTTTTT GGGCACAAGC TCTTTCTCTT AGATGAGGCC TTTAGCGCCT TGGATGAGAT	2640
GACAAAGATG GAACTCCACG CTTGGTATCT TGAGATTCAC AAGCAGTTGC AGCTAACAAC	2700
CCTGATCATC ACGCATAGTA TTGAGGAGGC CCTCAATCTC AGCGACCGTA TCTATATCTT	2760
GAAAAATCGC CCTGGGCAGA TTGTTTCAGA AATTAAACTA GATTGGTCTG AAGATGAGGA	2820
CAAGGAAGTC CAAAAGATTG CCTACAAACG TCAATTTTG GCGGAATTAG GCTTAGATAA	2880

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GTAGAAAAAT AGGGAGTTGG TGAAGATTAT CCTTTACCAG CGCCCTTTTT CTTTTAAAAA	2940
TGAGAAAATT TCGGTATAAT AGTCAAACAA GGTCAAGGTT TAAAGAGAGA GGTGGGTTTG	3000
TTATGAGATT TAAAAATACA TCGGATCATA TTGAGGCCTA CATCAAGGCG ATTTTAGATC	3060
AATCTGGTAT CGTGGAGTTG CAACGGAGTC AGTTGGCAGA TACCTTTCAG GTTGTTCCCTA	3120
GTCAGATTAA CTACGTGATC AAGACACGCT TTACGGAAAG TAGAGGCTAC TTGGTTGAAA	3180
GTAAGCGTGG TGGCGGAGGC TACATTGCTA TAGGACGGAT TGAGTTTTCT AGTCATCATG	3240
AAATGCTCCG GGAGCTGCTT TACTCGATTG GTGAGCGAGT CAGTCAAGAA ATTTATGAGG	3300
ATATTCTCCA GCTTTTGGTT GAGCAGGAAT TGATGACCAA GCAGGAGATG AATTGCTAG	3360
AATCAGTAGC TTTGGATCGC GTTTTAGGAG AAGAAGCTCC AGTTGTTCTGA GCAAACATGC	3420
TACGTCAGAT CATACAAGAG GTAGATAGAA AAGGGAAGTA AGATGAACATA TTCAAAGCA	3480
TTGAATGAAT GTATCGAAAG TGCCTACATG GTTGCTGGAC ATTTTGGAGC TCGTTATCTA	3540
GAGTCGTGGC ACTTGTGAT TGCCATGTCT AATCACAGTT ATAGTGTAGC AGGGGCAACT	3600
TTAAATGATT ATCCGTATGA GATGGACCGT TTAGAAGAGG TGGCTTTGGA ACTGACTGAA	3660
ACGGACTATA GCCAGGATGA AACCTTTACG GAATTGCCGT TCTCCCGTCG TTTGCAGGTT	3720
CTTTTTGATG AAGCAGAGTA TGTAGCGTCA GTGGTCCATG CTAAGGTACT AGGGACAGAG	3780
CACGTCCTCT ATGCGATTTT GCATGATAGC AATGCCTTGG CGACTCGTAT CTTGGAGAGG	3840
GCTGGTTTTT CTTATGAAGA CAAGAAAGAT CAGCTCAAGA TTGCTGCTCT TCGTCGAAAT	3900
TTAGAAGAAC GGGCAGGCTG GACTCGTGAA GATCTCAAGG CTTTACGCCA ACGCCATCGT	3960
ACAGTAGCTG ACAAGCAAAA TTCTATGGCC AATATGATGG GCATGCCGCA GACTCCTAGT	4020
GGTGGTCTCG AGGATTATAC GCATGATTTG ACAGAGCAAG CGCGTTCTGG CAAGTTAGAA	4080
CCAGTCATCG GTCGGGACAA GGAAATCTCA CGTATGATTC AAATCTTGAG CCGGAAGACT	4140
AAGAACAACC CTGTCTTGGT TGGGGATGCT GGTGTCCGGA AAACAGCTCT GCGGCTTGGT	4200
CTTGCCCAGC GTATTGCTAG TGGTGACGTG CCTGCGGAAA TGGCTAAGAT GCGCGTGTTA	4260
GAACCTGATT TGATGAATGT CGTTGCAGGG ACACGCTTCC GTGGTGACTT TGAAGAACGC	4320
ATGAATAATA TCATCAAGGA TATTGAAGAA GATGGCCAAG TCATCCTCTT TATCGATGAA	4380
CTCCACACCA TCATGGGTTT TGGTAGCGGG ATTGATTCGA CTCTGGATGC GGCCAATATC	4440
TTGAAACCAG CCTTGGCGCG TGGAACTTTG AGAACGGTTG GTGCCACTAC TCAGGAAGAA	4500
TATCAAAAAC ATATCGAAAA AGATGCGGCA CTTTCTCGTC GTTTCGCTAA AGTGACGATT	4560
GAAGAACCAA GTGTGGCAGA TAGTATGACT ATTTTACAAG GTTTGAAGGC GACTTATGAG	4620
AAACATCACC GTGTACAAAT CACAGATGAA GCGGTTGAAA CAGCGGTTAA GATGGCTCAT	4680

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CGTTATTTAA CCAGTCGTCA CTTGCCAGAC TCTGCTATCG ATCTCTTGGA TGAGGCGGCA	4740
GCAACAGTGC AAAATAAGGC AAAGCATGTA AAAGCAGACG ATTCAGATTT GAGTCCAGCT	4800
GACAAGGCCC TGATGGATGG CAAGTGGAAG CAGGCAGCCC AGCTAATCGC AAAAGAAGAG	4860
GAAGTACCTG TCTACAAAGA CTTGGTGACA GAGTCTGATA TTTTGACCAC CTTGAGTCGC	4920
TTGTCAGGAA TCCCAGTTCA AAAACTGACT CAAACGGATG CTAAGAAGTA TTAAATCTT	4980
GAAGCAGAAC TCCATAAACG GGTATCGGT CAAGATCAAG CTGTTTCAAG CATTAGCCGT	5040
GCCATTGCGC GCAACCAGTC AGGGATTGCG AGTCATAAGC GTCCGATTGG TTCCTTTATG	5100
TCCTAGGGC CTACAGGTGT CGGGAAACT GAATTAGCCA AGGCTCTGGC AGAAGTTCTT	5160
TTTGACGACG AATCAGCCCT TATCCGCTT GATATGAGTG AGTATATGGA GAAATTTGCA	5220
GCTAGTCGTC TCAACGGAGC TCCTCCAGGC TATGTAGGAT ATGAAGAAGG TGGGGAGTTG	5280
ACAGAGAAGG TTCGCAATA ACCCTATTCC GTTCTCCTCT TTGATGAGGT AGAGAAGGCC	5340
CACCCAGATA TCTTTAATGT TCTCTGCAG GTTCTGGATG ACGGTGTCTT GACAGATAGC	5400
AAGGGACGCA AGGTCGATTT TTCAAATACC ATTATCATTA TGACATCGAA TCTAGGTGCG	5460
ACTGCCCTTC GTGATGATAA GACTGTTGGT TTTGGGGCTA AGGATATTCG TTTTGACCAG	5520
GAAAATATGG AAAACGCAT GTTTGAAGAA CTGAAAAAAG CTTATAGACC GGAATTCATC	5580
AACCGTATTG ATGAGAAGGT GGTCTTCCAT AGCCTATCTA GTGATCATAT GCAGGAAGTG	5640
GTGAAGATTA TGGTCAAGCC TTTAGTGGA AGTTTGAAGT AAAAAGGCAT TGACTTGAAA	5700
TTACAAGCTT CAGCTCTGAA ATTGTTAGCA AATCAAGGAT ATGACCCAGA GATGGGAGCT	5760
CGCCCACTTC GCAGAACCCT GCAAACAGAA GTGGAGGACA AGTTGGCAGA ACTTCTTCTC	5820
AAGGGAGATT TAGTGGCAGG CAGCACACTT AAGATTGGTG TCAAAGCAGG CCAGTTAAAA	5880
TTTGATATTG CATAAAAGAA TAAAAGTATC AGCATCTGAC CATAAGTCAC AGTGGAGTGA	5940
AATTCAATGA AAATCAAAGA GCAAACCTAGG CAGCTAGCCG CAGGTTGCTC AAAACACTGG	6000
TTTGAGGTTG CAGATAGAGC TGACGTGGTT TGAAGAGATT TTCGAAGAGT ATGAAACTAA	6060
AACCTATAGC TTCTAAACGA TCCGTGGTTT TCATCATTTCA ACACAAAATT CATATGTTTA	6120
TTACCCTCCG TCGTATTTGT CTTAGAGCGT GTGTAGTAGA AAAAGAGCAG TCTTATCTGA	6180
AATTTTATT CTTTCAAAG AGACCTGTTT CTTTTTGCA TGTCAAATCC GTTCTAGCTG	6240
GTATTTGAAA AATCAAATA ATATTCAATG AAAATCAAAG AACAACTAG GAAGCTAGCC	6300
GCAGGTTGCT CAAAACACTG TTTTGAGGTT GTAGATAGAG CTGACGTGGT TTGAAGAGAT	6360
TTTGAAGAG TATAAGCTGC AAGATGAATG ATTTCTTGT ATTGACGTTG TTGTTGACAA	6420

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AAAGTAGCGG ATAAATGAAA TCCATTCCAT TATCATAGAT GATAGGCTGG TAGGAAATTT	6480
TCAAATAGCA TACAGGAAAT AGATGTATGG AGTTCTGGTA GTAGAAAGGG AGAGAGATGA	6540
ACATTTTAGT TGCAGATGAC GAGGAAATGA TTAGAGAAGG AATTGCAGCA TTTCTGACAG	6600
AAGAGGGTTA TCATGTCATT ATGGCTAAGG ATGGACAAGA GGTCTTGGA AAATTTCAAG	6660
ATCTCCCTAT CCATCTCATG GTACTGGATT TAATGATGCC TAGGAAGAGT GGTTTTGAAG	6720
TGTTAAAAGA AATCAATCAA AAGCACGATA TTCCTGTCAT CGTCTTGAGT GCTCTGGGAG	6780
ATGAAACTAC TCAGTCACAG GTATTTGATC TCTATGCTGA TGATCATGTG AAAAAACCTT	6840
TTTCTTTGGT ACTGCTTGTC AAGCGTATTA AGGCGCTTAT CAGACGTTAC TACGTCATAG	6900
AGGATCTTTG GCGATATCAG GATGTAACAG TGGATTTTAC CTCTTACAAA GCACATTATA	6960
AAAATGAAGA AATTGATCTC AAACCAAAGG AATTACTGGT ACTAAAGTGT TTGATTCAGC	7020
ATAAAAATCA AGTTTTAAGT AGAGAGCAGA TATTGGAAGA AATTTCAAAA GATGTAGCTG	7080
ATTTACCTTG TGATAGGGTC GTTGATGTCT ATATTCGTAC TCTTCGCAAA AAATTAGCTT	7140
TAGATTGTAT CGTGACTGTG AAAAATGTTG GGTATAAGAT TAGCTTATGA TAAAAATCC	7200
TAAATTATTA ACCAAGTCTT TTTTAAGAAG TTTTGCAATT CTAGGTGGTG TTGGTCTAGT	7260
CATTCATATA GCTATTTATT TGACCTTTCC TTTTATTAT ATTCAACTGG AGGGGGAAAA	7320
GTTTAATGAG AGCGCAAGAG TGTTTACGGA GTATTTAAAG ACTAAGACAT CTGATGAAAT	7380
TCCAAGCTTA CTCCAGTCTT ATTCAAAGTC CTTGACCATA TCTGCTCACC TTAAAAGAGA	7440
TATTGTAGAT AAGCGGCTCC CTCTGTGCA TGACTTGGAT ATTAAAGATG GAAAGCTATC	7500
AAATTATATC GTGATGTTAG ATATGTCTGT TAGTACAGCA GATGGTAAAC AGGTAACCGT	7560
GCAATTTGTT CACGGGGTGG ATGTCTACAA AGAAGCAAAG AATATTTTGC TTTGTATCT	7620
CCCATATACA TTTTGGTTA CAATTGCTTT TTCTTTGTT TTTCTTATT TTTATACTAA	7680
ACGCTTGCTC AATCCTCTTT TTTACATTTT AGAAGTGAAT AGTAAATGC AAGATTTGGA	7740
TGACAATATT CGTTTTGATG AAAGTAGGAA AGATGAAGTT GGTGAAGTTG GAAAACAGAT	7800
TAATGGTATG TATGAGCACT TGTTGAACGT TATTTATGAG TTGGAAAGTC GTAATGAGCA	7860
AATTGTAAAA TTGCAAAATC AAAAGGTTTC CTTTGTCCGC GGAGCATCAC ATGAGTTGAA	7920
AACCCCTTTA GCCAGTCTTA GAATTATCCT AGAGAATATG CAGCATAATA TTGGAGATTA	7980
CAAAGATCAT CCAAAATATA TTGCAAAGAG TATAAATAAG ATTGACCAGA TGAGCCACTT	8040
ATTAGAAGAA GTACTGGAGT CTTCTAAATT CCAAGAGTGG ACAGAGTCTC GTGAGACCTT	8100
GA CTGTAAAG CCAGTTTTAG TAGATATTTT ATCACGTTAT CAAGAATTAG CTCATTCAAT	8160
AGGTGTTACA ATTGAAAATC AATTGACAGA TGCTACCAGG GTCGTCATGA GTCTTAGGGC	8220

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ATTGGATAAG GTTTTGACAA ACCTGATTAG TAATGCAATT AAATATTCAG ATAAAAATGG	8280
GCGTGTAATC ATATCCGAGC AAGATGGCTA TCTCTCTATC AAAAATACAT GTGCGCCTCT	8340
AAGTGACCAA GAACTAGAAC ATTTATTTGA TATATTCTAT CATTCTCAAA TCGTGACAGA	8400
TAAGGATGAA AGTTCGGT TGGGTCTTCA CATTGTGAAT AATATTTTAG AAAGCTATCA	8460
AATGGATTAT AGTTTCTCC CTTATGAACA CGGTATGGAA TTAAAGATTA GCTGTAGAC	8520
AGATTAGTTT TTTATTAAAG TTCATATAGG GTTAACATAA GTGTGTTATT CTTGTGTAG	8580
ATAAAGAAA GGATACTAAT ATGGTATTAG CGATTATTTT AGTAACATTC TTTATTCGAT	8640
TGATTTTTTTT AAAGCGTTCG ATAGAGAATG AGAAACGAAT CCTTAGCAAT GCGGGG	8697

(2) INFORMATION FOR SEQ ID NO: 124:

- (i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 4317 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 124:

AACCATACAT ACGGCAAGGC AAAGCTGACG CGGTTTGAAG AGATTTTCGA AGAGTATTAG	60
TTGCCTTTAA AGGCATCCAC CATCGTTTGA AATCTTCAT TTGAGAGAGT AATCCCTTTG	120
CCCATTTTAG TATGGTCTGG ACTCCAAGCA CGAATATCAA ACTTTGCAGG GGCACCATTA	180
AAGCTCACAC GGTAAATTC CTTGGTCCAA CCTTTTTCGT TTTCAGAAAG AGTCAACAAG	240
TGCTCTTCGA TTTCAAATGT AAATCTGCC ATTTCTTCT CCTTTTTTAG TTTCATTAGT	300
TTATTCGTAA AATCTTGTAG ATTTTAGGAA AATTTTATAT AATATTGATA TAAAAGAAGG	360
GAGGCCAATA TGAGACATAA ATTCCAGCAA GTTCTAAATA AAATACATGA TTTTTTAAAT	420
GGATATGACC AACCTGACCA GACTGAAACC AACTCCCTTA CAGCCACTAT TGAAGAGGCT	480
ATCCAGAAAC AAACCGCTGT TCACCTTATC TTGTCTGAGA CAAGCTTTAC AGGTGACATC	540
ATCAAATATG ATCAGCAAGG CCAGCAAAT ATCGTGAAAA ATTTTTCCTT AAATGTGAGC	600
CGGATTATCC GTATAAGCGA TATTCAACGC CTGCGATTTG TCCCCTCAAC TGTCCAAACA	660
GCCCCAAAAA ATAGATTTAA GAAAGAGTGA GATGTAGTTG CTTTCATCCCA CTCTTTTTTC	720
TTAGCGAATT TGTTCAAAT GTAAATGAAC TCGGATATGA TCTCCATAAC CACTTCTTTC	780
CAAGTCACGT TGTAACGAT AGGAAATGTA GTGTTCTGCA ATGGTAATGT AACCTGCGCC	840
CAATAAACGA TGTTCAACCA TAGATTGAAT CATACTGATA GTCGCACGTT CCACCTTGGC	900

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TTCTTGTA	AAA	TCCAAA	ACTA	CCTTCT	TAGT	GACTTG	GAGCA	AGATTT	TGAC	GCAAAT	CATC	960
TGTCAAAA	ACA	TAAACAG	TTT	GGGCTG	CCCT	CAAGAT	GGCT	TGGTAA	AATCT	TATCTG	GATT	1020
AAATTCAG	CA	ATTTG	CCCAT	TACGTT	TGAT	TACTTG	CATA	GGTTT	CTCCT	TTATT	CTTTG	1080
TTTTCTTT	G	TTTCTG	CCAG	CATTTTT	TCT	TCTTCT	ACTG	TCAGTT	GATA	ATGTT	CAAGT	1140
AAATCCGG	TC	TGCGCT	CGTA	GGTTTT	CTTT	AACTCT	CGT	ACAATC	GCCA	CTGAC	GAAATC	1200
TTTTTCAT	GGT	GGCCACT	CAT	CAATAC	ATCT	GGCAC	GACCA	TGCCT	CGATA	ATCAT	AGGGA	1260
CGTGTGTA	CT	GAGGAT	ATT	TAAAAG	ACCT	GAAGAAA	AAC	TATCAT	CTTG	GTGGCT	AGAC	1320
TCCTTGCCA	A	TCACTT	CTGG	AATCAG	GCGA	ACTGTAG	CAT	CAATCAT	GGT	CATAG	CTGCC	1380
AATTCTCC	AC	CAGTGAG	GAC	ATAGTC	ACCT	AGGGA	AATCT	CATCTG	TTAC	CAAGGT	CTTA	1440
ATGCGCTCA	T	CATAACC	CTC	ATAGTG	CCCA	CAGATA	AAAG	TTAGCT	CTTC	CTCTG	AGCC	1500
AAATCTTC	AG	CATAAG	CCTG	ATCAA	ACTGC	TTCCAG	CAG	GATCA	AGGAG	AATAAC	GCGC	1560
GGATTTTT	CT	TTTCAAT	AGC	ATCAA	AGGAA	TGAAA	AATAG	GTTGTG	CTCT	GAGCA	ACATG	1620
CCCTGACCG	C	CTCCGT	AGGG	CTCAT	CATCT	ACATG	ACGGG	CCTTTT	CAGC	ATTTT	CTCGA	1680
AAATTATGA	T	ACTGGAT	ATC	CAAGAG	CCCT	TTTTCT	CGAG	CCTTTT	CCAAC	GATTG	AGTGC	1740
TCCAGTGG	AG	AAAACAT	CTC	TGGAA	AGAGG	GTAAAA	AATAT	CAATCT	TCAT	CGTCT	AACCC	1800
TTCTAAGAT	T	TCCACAT	CGA	CCCGTT	ACT	TGGAAT	ATCA	ACATTG	AGAA	CCACTG	GGTGG	1860
GATATAAGG	T	AAAAGCA	AAT	CACGTT	TGCC	TTTTCG	TTTG	ACCACCC	AGA	CATCAT	TAGC	1920
ACCTGGTTG	C	AGGATTT	CCCT	TGATGG	TTCC	AACCAAG	CTA	TCACCCT	CAT	AGACTT	CCAA	1980
ACCGATAAT	C	TCGTGAT	AGT	AAAATT	CACC	ATCGT	CTAGG	TCATTCA	AAT	CTTCTC	CAGC	2040
GACCTTGAG	A	CTGTAT	CCCT	TGTACT	TTTC	GATAGT	ATTG	ATATGG	TACA	TATCTT	TGAA	2100
TTTAATAAT	G	TCAAAGT	TCT	TCTGTT	TACG	GTGGCT	AGG	ATGGT	CACTG	TTTGG	ACAAA	2160
CTGATCTTT	T	TCATCAA	ACA	AAACCAG	CTC	AGCTC	CTTTT	TTAAACC	GTT	CTTCTG	CAAAA	2220
ATCCGTCAC	A	GACAAG	ACTC	GCATCT	CCCC	CTGTA	ATCCC	TGCGT	ATTAA	CGATTTT	CCC	2280
AACATTAA	AG	TAGTTC	ATCT	TGTCTC	CTGT	AATCTC	CTTT	TTCCAT	CTT	ATTCTA	ACAA	2340
TTCTCGAAT	A	ATAGCCG	CAA	TTTTTT	CCGA	TTCTG	ACCAT	TGTAA	AATAT	GGTGAT	TCCC	2400
TCCTAAATG		AGTTTAG	TAT	TGGAAG	TCCA	ATATTCT	GAT	TCTCTG	TACT	CTTTTT	CTCT	2460
ATAAGGCTG	A	CAAAAA	ACAA	ATACAG	GAAT	ATGAGC	TTCT	ATAGAT	ACAT	CCTCAAA	ATC	2520
TTCTCAGTA		ATCTCT	CCAG	ATATCT	GAAA	TTCTG	GATCT	TGATTT	TCCA	ACTCTA	AGCC	2580
TTTTTCTTG	C	ATTAATT	CCCC	AGATTT	TTTT	ATTGTT	TCA	GACTAA	ATG	TTGCTT	GAGT	2640
TAAGTTCTT	A	AAATAA	AGTT	CAGGAC	CACA	CTCGT	CAATC	AGCCTC	ATCT	GCTCTT	CCAT	2700

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TTCTGGATAA GGATTTTCTG AAAAATCAGC AACATGACT TTTTtagTTG TCGGTTCAAT	2760
TGCTACTAAA GTCTGACGCT TAATTGGTTT CTCGAGTAAT TTGCAAGCTA AAATTCCACT	2820
CCAACTATGT GCACAAAGTA TATATTCAGA AATTCCTAAT TCTTCAAGTA CTTCATAAAC	2880
CGCATCTGCA AGATTATCTA GATTTTTCCT AGCTTGGTCA TGAATCGGAC TCCTACCTGT	2940
GTTCCGAAAA TCAATTGTCA AATAACCAAT TGTAGGAGGA GGTTTTTCAT GTATAAGTGA	3000
AAAATTTTCA TAACTTGGTA GCAAACCTGC TCCGTTTAAA CAACTAGCA CTTTCTTTTG	3060
CTTTTGATAA GTAACAGAGA GGCTACCAAT TTCTGTAGAT ACTTCAAACC TCTTCATAAA	3120
GAAATCCACT GATTCTATAT AATGAATTAT TAAAAATCCT TATCCTTTAT TTTATCACGT	3180
TCCAAGGATT TTCTCAAGTT GGAGGAAGGG GACAATATCT CTACTTTCCC TTCAATAATC	3240
CTTCCAAATT ATGTTTATGT TGGTAATTAA TGGCTGCGGT TTTGTCTTTC TCAAAGACAG	3300
TCTTGGTAAG GTCAATATGA TTAATAGCTA CGATTGCGAC GGTGTAGTAA ATGATATCAG	3360
CCAGTTCTCT GGCAAGTTCC TCGTTTGAAT CCTATCCCTT CTTTTCGACC AGAGCGCCTA	3420
TTCAAAACCT CGACTACTTC TCCGACTTCC TCCACTAACT TCATAAAGAG ACCTTCATCA	3480
GTCCGAGACT GCTGTTAATG TTCGATTAAG TAGTCTTGA ATTGCCTAAA CGTTCAATCT	3540
TTTATAGTAT ATTGAAACTA GAATAGTACA CCTTTACTTC TAAACATTG TTAGAAATCG	3600
ATTTGACTGT CCTGATCGAT TTGTCTGTCT CTGTTTTCAT TTTACTATAT CTTCTATTCC	3660
ACACAAAAAA GCGAGACATC CGTCCCGCCC TTCTTATTTT TCGTCAATAA CGATTCTTAC	3720
TTTTTTGTAT TCAGTTGGGA CAGAGTAGAC AATCGTTCTT ATCGCAGAAA TAGTGGCACC	3780
CTTACGACCG ATTACACGAC CCACATCGCT TTGATCAAGA TTCAAATGAT ATTCCAAAAA	3840
TTCTGGTGTA TCCTCAATCT TGATAGTTAA GGCATCTGGT TGTGAAATTA AGGGTTTCAC	3900
AATCGCAATA ATGAGATTTT CAATCGTATC CATCTGTCAA CCTACTTTAA ACTTATTTTG	3960
AAAATTTAGA ATCGTGGAAT TTTTTCATA CGCCTTCTTT TGAAAGGATG TTACGTAAGT	4020
TGTCTGAAGG TTGAGCTCCA TTAGCCAACC ATGCAAGAAC GCGGTCTTCT TTCAAAGTTA	4080
CTTGGTTTTT AGCAACAAGT GGGTTGTAAG TTCCAAGTGT TTCGATGAAA CGTCCGTCAC	4140
GTGGTGAACG TGAATCTGCT ACGTTGATAC GGTAGAAAGG TTTTTCCTTA GAACCCATAC	4200
GAGTCAAACG GATTTTAACT GCCATTTTAA AAGTCTCAT TCTTTAATTT TTTATTTCCG	4260
TGAAATAGCT GAGCTATTTA GCACATGTTT TATTATAGCA GATTTCTGGC ATGTGTC	4317

(2) INFORMATION FOR SEQ ID NO: 125:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 4881 base pairs

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(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 125:

AATTTATTTG ACTGGAAATT GTAGAGGGTT CTCGAAATTT CTTGAATGGT TAAAATAAGG	60
ACAAGAGAAA ACATGGATAT CTATATCCTT GTGCCAAAAA AACCCTGCC CTCCCCAGAC	120
CAACCTGAGG AAAGCAGTGA TTCTTATTTT AGGAGTTAGG AATGAATACA CGAAATCAAT	180
TTAGCTGATT ATTTTTTGT TTTCAAGAAT TCATCGTATT GTTTTTGCAT TTCGTTCAAT	240
ACTTTTTCGT AGGCACCTTC AGATTTCAAT TTTTCCATCA ATTCTGGAAT CGCTTTATCT	300
GGGTCTACAG TACCAGTGT GATAGCTGTA TCAAATTGTT GCATTGTGTT AGCAATAGCT	360
GAGATTTTCA GATTCACATT GTCAGTATTG AAGATAAATC CAAGCGCTGG AGATTCTTTA	420
GCTTCTGCCA ATTCTTCTT AGAATTTTCG ATTTGTTGGT CTGTAACGTT TTCGTTGATG	480
TAAAGGATCC AGTTGTTACC AGTGTTCAT CCACCCATGT GAGTGTTCCT TTTGTAGCCA	540
TCAAGAACGC GAACACGGTT TTCTTTACCT TCAATTTTTT CCCAGTTCCT GCCTTCTGGA	600
CCGTAAACAA GACCGTTCAA GAGTCTGCG TTCGTATTCA AGAGGTTCAA GATTTCATT	660
GATTTTCTT TGTCTTAGA GTGTTTGAG ATGACAAAGT TAGCAACTG TGTGTTTGG	720
TTTTTCTTGA TGAAGTTAGT AATTGGTTG ATTTGGATAT CTTTGTGGC AACACGTGAA	780
AGCAAGCTGT TACCGTAGTC AGCTGGTCCT ACTGTTTCTT CACGAACGAA CCAAGTATCT	840
TGTTGAAGGT CAAAGGAAGT ATCGCTTGT GCGACGTCTT TTGGAATGTA GCCAGCTTCA	900
TAGAATTTGT GAAGAGTCTT CAAGTGTCTT TTGAAACGAG GCACTTCGTA ACGGTTTACA	960
ACTTTAGTAG TATCGCCTTC AAGGTCGATA ACCAATGGAA GACCGTTTGC TACTGGGTAG	1020
TCAAAATTAT CAGATGGGAT GAAAACTTA CCAATAGCAA ATGGTACTAC GTCTGGAGCT	1080
TTTTCTTTGA TTTGTTTCAA GACTGGCTCA AGAGTTTCGT AAGAAGTAAC ACCTGAAATA	1140
TCGATACCAT ATTTAGCAAG GAGAGTCCG TTGAAGGCAA AGTTTGTAGA TGATGCAACG	1200
TTGGCTGCAA CTGGAACAGC GTAAATCTTA CCATTTACAG TATTACCCTT GATGTAAGCT	1260
GGGTCAAGTG CTTTGTAAG GTCTTTACCT TCTTTTTTGT ACAATTCTGT CAAGTCAGCG	1320
TAAGCACCTT TTTGAGCATT TACAATATAG TTATCTGCAA AGGCAATATC ATAGTTTCA	1380
CCAGATGATG TGATAACTGA CATTTTCTTA CCATAGTCAC CCCAGCCAAG GTATTGGATA	1440
TCCAATTTGG CACCAACTTT TTCTTCAATG ATTTGTTGG CATTTGCTAA CAATTCATCC	1500
AAGTTGTCTG GTTTGTCACC GATTTGGTAC ATTTTGATAA CAGGTTTGT ACCTGAATCA	1560

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GCAGCTTTTT TGCTGTTACC TGTCAAATTT CCACAAGCAG CAAGACCTGC AGCCAGAGCG	1620
ACTACACTAG CAGATGCAAA AGCATATTTT TTCCAGTTTT TCATGATAAA AACTCCTTTT	1680
TTTATTTTTA AACTTATAAA CAATGTAATG ATCTTATACT CAATAAAAAAT CAAAGAGCAA	1740
ACTAGAAAAC TAGCCGCAGG CTGCTCAAAG CACTGCTTTG AGGTTGTAGA TAAGACTGAC	1800
GAAGTCAGTT ACATATATCT ACGGCAAGGC GACGTTGACG CGGTTTGAAT TTGATTTTCG	1860
AAGAGTATTA ACTTCACACA AGGGAAGTTG GGAAGTGAAG AATGTTATTT CTCAATAAGC	1920
ACTATTCTTT CACACCACCG ATAGTCAAAC CTTTACAAA GTAGCGTTGG AAAAATGGAT	1980
ACAAAATCGC GATTGGAAGG GTTGCAACCA CAACCATGGC CATACGACCT GTTCTTTTCG	2040
GTAGAGCAAC TCCCAGTTGA CCAATCAAGC CGACCGCTTT GGCAATGTAG TCCATATTTT	2100
GTTGGATTTG CATGAGCAAA TATTGCAATG GATACAAGTT GTCACTCTTG ATGTAAGAA	2160
GGCGTTGAA CCAGTCATTC CAGAAACCA GAGCTGTAA GAGCGTGATG GTTGGGATAC	2220
CTGGTAGTGA CAATGGCAAA CAGATTGGA AGAAAATCCG GGCCTCACTG GCACCATCGA	2280
TACGAGCCGA TTCTAGAATG GCTTCTGGAA TGGTCTTCTT GAAGAAGGAA CGCATCAAGA	2340
TGATGTTAAA TGGTGAGAGA AGCATTGGA CAATCAAGGC CCAAACAGTG TCACCAAGCT	2400
GAAGTACACG GGTCAACATG ATATAACCTG GTACCAAACC AGCGTTGAAC AACATACTGA	2460
GAAGGACGAA GATGGTAAAG AATCTGCGAT ACTTAAAGGT TGTCCGTGAA ATACCGTAGG	2520
CATAGGTTGT TGTGATAAAG ACATTGTCA ATGTCCCAAC TACGGTTACA AAGACAGAGA	2580
TGAAGAGGGC TTGTAGGATT TTATCCTTAA ACTGTCCCA AACTCAAAA CCGTCTAAGC	2640
CAAATTGGGA TGGGAAGAAG CTATAGCCGT ATTGGAGGAG GCTTTTCTCG TCTGTCACTG	2700
AAATAATGAT AACGAATACA AAAGGTAGGA TACAAGAGAG GGCAATCAAA CCCGAAATGA	2760
TACTGAAGAA GATATCTGCT TTCTTACTGA AGGAGTGAAT GCCGACATTA TCAATTTTTT	2820
CTTTTTTAAT TTTCTTTTTT GCCATATTCT CCTCCTTTCT AGAACAAAGC TGAGTTTGGA	2880
TCGACTCGTC TTGCAAGCAA GTTTGATAGG ATAACCAGAA TCAAACCAAC AACGGATTGG	2940
TAAAGACCGG CTGCTGCAGC CATACCGATA TCTGCTGTCT GAGTCAAACC ATTAAAGACA	3000
TATACGTCCA AAACGTTGGT TACATTGTAA AGCTGACCAG CATTGTGTGG GATTTGATAG	3060
AAGAGACCGA AGTCTGCGCG GAAGATATTT CCGACTGCAA GGATGGTCAA TACAGTTACA	3120
AGCGGAGTCA ACTGAGGAAT GGTACGTTG CGAATACGTT GCCACTTGCT AGCTCCGTCC	3180
ACTGTCGCTG CTTGCTAGTA GGTGGATCA ATTCCCATGA TCGTCGCATA GTACATGACA	3240
CTGCTATATC CAAAGCCTTT CCAAATACCT AGGAAAAGTA GGAGATAGGG CCAGATGCCC	3300

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AGGTCAGCGT AGAAATTGAC TTCTTTGAGA CCAAGACTTT CCAATAGATG ATTGAACACC	3360
CCTTTATCAA TATTTAGGAA GGCATCTGTA AAGAAACTGA TGATAACCCA AGACAAGAAG	3420
TAAGGGAACA ACATAGAAGT TTGAAAAATC TTCACCATTC TCTTAGAACG GAGCTCGCTG	3480
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AGGACAGTAT TTCGTGTGAT AATAAAGGCG TCTCTTGAAC TAAATAAGAA TCTAAAATTA	3600
TCGAGTCCGA CCCATTTACT ATTTATGATA CTATCTATGA AACCATTACT GGTCACTGG	3660
TAGTCTTTGA AGGCAACCAC GTTCCCAAAT ACTGGAATGT AAAAGAATAG AATCAACCAG	3720
AGTGCCCCCTG GCAAAACCAT CAAGAGAAAG ATCCAGTTGT CTCTCAATGT TTTTGAAAAC	3780
TTTTTCATAA TTTCTCCCT TTTTATTTTG ATATCCATCT AAAAATTCTT TTTTAGACTT	3840
TTGATAACGA TTACATTATT AGTATACTCC TATTTGCAGG TTAGGTAAA CTCCTAATTA	3900
TAGAAAAAAC TCCACAAATT ATGTAGCAGA TTTAAACTT TATCACCCT ATCAAACAAA	3960
TGTCCTAAAT CAATTGTTTA TTTATCTCT ATTAGCCCAG TGATGGCGTC ACTCTGTTAT	4020
AAGCATCAA CAACGGGGTA TACTGAAAA TCTCCAGACT AGGGAACCTA GCGATAGTTC	4080
CTAATCTGGA GATTTTTAAT ATGTTATTAG GCGTTTGCTT TCAACTTAGC AATAACCTCT	4140
TTAAGATTAT CAATCAACTC TGCTGCAGTA TGCTCAGAGC CTTTTTCATC TGCCAAGAAC	4200
AAACTGCTT TTTGAAGTTC TTTTGAGAG TTTTCAAGGA CATCCTTATC TACTGTTTCA	4260
AGGTTTGAGT CTTTAAGAAG TTTACTTAAT TCCTTGCGTA ATTTCTTGAG TTTGATTGCT	4320
AGACTCATCT TCTCCTGCTG TTTCTTTGCC CGCTGTTTGT CCTCCATCCT TAGTTGCTGA	4380
CTGGCTTTCC TTAATGGACT CTAGGGAAGC AATGGCATCT TTGACTGTTT GCAAGATATC	4440
ACGTAAACCT TGCTCTGTCA AACTATCATC TGCAAAAGCT TTATTAGCCT CTGCCAAAAC	4500
CAGACGTGCT GAATCTGTGG TAGGATTCGA TACACCTGTC AATGATCTCA AAAGATTTTC	4560
TAAGGTTTGA GTCTGCTTAC TAATACTAGA CTAAAATCAA AAAGTATTAT ATAACAGTGA	4620
TATGAAATCA ACTAAAGAAG AAATCCAAAC CATCAAAACA CTTTAAAAG ACTCTCGTAC	4680
AGCTAAATAT CATAAACGCC TTCAAATCGT TCTATTTTGT CTGATGGGCA AATCTTATAA	4740
AGAGATTATA GAACTTTTAT AGTAGTTTGA AATAAGATGT GAACATCTCT ATCAGGAAAG	4800
TCAAATTAAT TTATAGAAAT ATTTTAGCAG CCAAGGTGTA CTGTTATAGA TTCAATACAC	4860
TATACTTGGT GGTTTAGCTC G	4881

(2) INFORMATION FOR SEQ ID NO: 126:

- (i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 13121 base pairs
(B) TYPE: nucleic acid

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(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 126:

AGGATCCCCG GAAAAGGAGA CTAAAAATGA AGAAAAAATT TCTAGCATTT TTGCTAATTT	60
TATTCCCAAT TTTCTCATTA GGTATTGCCA AAGCAGAAAC GATTAAGATT GTTTCTGATA	120
CCGCCTATGC ACCTTTTGAG TTAAAGATT CAGATCAAAC TTATAAAGGA ATTGATGTTG	180
ACATTATTAA CAAAGTCGCT GAGATTAAAG GCTGGAACAT TCAGATGTCC TATCCTGGAT	240
TTGACGCAGC AGTCAATGCG GTTCAAGCTG GGCAAGCCGA CGCTATCATG GCAGGGATGA	300
CAAAGACTAA AGAACGTGAA AAAGTCTTCA CCATGTCTGA TACTTACTAT GATACAAAAG	360
TTGTCAATTG TACTACAAAG TCACACAAAA TTAGCAAGTA CGACCAATTA ACTGGCAAAA	420
CCGTTGGTGT TAAAAACGGA ACTGCCGCTC AACGTTTCCT TGAAACAATC AAAGATAAAT	480
ACGGCTTTAC TATTAAAACA TTTGACACTG GTGATTTAAT GAACAACAGC TTGAGTGCTG	540
GTGCCATCGA TGCCATGATG GATGACAAAC CTGTTATCGA ATATGCCATT AACCAAGGTC	600
AAGACCTCCA TATTGAAATG GATGGTGAAG CTGTAGGAAG TTTTGCTTTC GGTGTGAAAA	660
AAGGAAGTAA ATACGAGCAC CTGGTTACTG AATTTAACCA AGCCTTGTCT GAAATGAAAA	720
AAGATGGTAG TCTTGATAAA ATTATCAAGA AATGGACTGC TTCATCATCT TCAGCAGTGC	780
CAACTACAAC TACTCTCGCA GGATTAAAAG CTATTCTGT TAAGGCTAAA TATATCATTG	840
CCAGCGATTG TTCTTTTGCC CCTTTTGTTC TCCAAAATTC AAGCAACCAA TACTCTGTA	900
TTGATATGGA ATTGATTAAG GCAATCGCTA AAGACCAAGG TTTTGAAATT GAAATCACCA	960
ACCCTGGTTT TGATGCTGCT ATCAGTGCTG TCCAAGCTGG TCAAGCCGAT GGTATCATCG	1020
CTGGTATGTC TGTCACAGAT GCTCGTAAGG CAACTTTTGA CTTCTCAGAA TCATACTACA	1080
CTGCTAATAC CATTCTTGGT GTCAAAGAAT CAAGCAATAT TGCTTCTTAT GAAGATCTAA	1140
AAGGAAAGAC AGTCGGTGTT AAAAACGGAA CTGCTTCTCA AACCTTCCTA ACAGAAAATC	1200
AAAGCAAATA CGGCTACAAA ATCAAAACCT TTGCTGATGG TTCTTCAATG TATGACAGTT	1260
TAAACACTGG TGCCATTGAT GCCGTTATGG ATGATGAACC TGTCTCAAA TATTCTATCA	1320
GCCAAGGTCA AAAATTGAAA ACTCCAATCT CTGGAAGTCC AATCGGTGAA ACAGCCTTTG	1380
CCGTTAAAAA AGGAGCAAAT CCAGAACTGA TTGAAATGTT CAACAACGGA CTTGCAAACC	1440
TTAAAGCAAA CGGTGAATTC CAAAAGATTC TTGACAAATA CCTAGCTAGC GAATCTTCAA	1500
CTGCTTCAAC AAGTACTGTT GACGAAACAA CGCTCTGGGG CTTGCTTCAA AACAACTACA	1560

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AACAACTCCT	TAGCGGTCTT	GGTATCACTC	TTGCTCTAGC	TCTTATCTCA	TTTGCTATTG	1620
CCATTGTCAT	CGGAATTATC	TTCGGTATGT	TTAGCGTTAG	CCCATACAAA	TCTCTTCGCG	1680
TCATCTCTGA	GATTTTCGTT	GACGTTATTC	GTGGTATTCC	ATTGATGATT	CTTGCAGCCT	1740
TCATCTTCTG	GGGAATTCCA	AACTTCATCG	AGTCTATCAC	AGGCCAACAA	AGCCCAATTA	1800
ACGACTTTGT	AGCTGGAACC	ATTGCCCTCT	CACTCAATGC	GGCTGCTTAT	ATCGCTGAAA	1860
TCGTTTCGTGG	TGGTATTCAG	GCCGTTCCAG	TTGGCCAAAT	GGAAGCCAGC	CGAAGCTTGG	1920
GTATCTCTTA	TGGAAAAACC	ATGCGTAAGA	TTATCTTGCC	ACAAGCAACT	AAATTGATGT	1980
TGCCAAACTT	TGTCAACCAA	TTCGTTATCG	CTCTTAAAGA	TACAACTATC	GTATCTGCTA	2040
TCGGTTTGGT	TGAACTCTTC	CAAACTGGTA	AGATTATCAT	TGCTCGTAAC	TACCAAAGTT	2100
TCAAGATGTA	TGCAATCCTT	GCTATCTTCT	ATCTTGTAAT	TATCACACTT	TTGACTAGAC	2160
TAGCGAAACG	CTTAGAAAAG	AGGATTCTGT	AATGGCAAAA	TTAAAAATTG	ATGTAAATGA	2220
TTTACACAAG	CACTATGGAA	AAAATGAAGT	CCTAAAAGGA	ATTACGACTA	AGTTCTATGA	2280
AGGAGATGTT	GTTTGTATCA	TCGGTCCTTC	AGGTTCTGGT	AAGTCAACTT	TCCTCCGTAG	2340
CCTCAATCTT	TTAGAAGAAG	TCCTAGCCG	TCACATCACT	GTGAACGGCT	ATGATTTAAC	2400
TGAAAAACA	ACCAATGTTG	ACCACGTCCG	TGAAATATC	GGCATGGTAT	TCCAACACTT	2460
CAACCTCTTC	CCTCATATGT	CTGTATTGGA	CAACATCACC	TTTGCTCCTA	TTGAGCACAA	2520
GTTGATGACT	AAGGAAGAAG	CTGAGGAATT	GGGAATGGAG	TTGCTTGAAA	AGGTTGGACT	2580
AGCAGATAAA	GCTAATGCCA	ATCCAGATAG	CCTATCAGGT	GGTCAAAAAC	AACGTGTGGC	2640
CATCGCTCGT	GGCCTAGCAA	TGAATCCAGA	CATCATGCTC	TTCGATGAAC	CAACTTCTGC	2700
CCTTGACCCT	GAGATGGTTG	GAGACGFACT	TAACGTTATG	AAGGAATTGG	CTGAGCAAGG	2760
CATGACCATG	ATTATCGTAA	CCCATGAGAT	GGGATTTGCT	CGTCAGGTTG	CCAACCGCGT	2820
TATCTTTACT	GCAGATGGCG	AGTTCCTTGA	AGACGGAACA	CCTGACCAAA	TCTTTGATAA	2880
CCCACAACAC	CCTCGTCTGA	AAGAGTTCTT	AGATAAGGTC	TTAAACGTCT	AAACTCAAAC	2940
TGTAAGGATT	TCCTTGCACT	TTTTCTACCT	CGTATTGGAA	TTTTTGATTT	TTGGAATAAT	3000
TATGTTAGAA	TTAAGTTTAT	GAAATGAGGT	TTCTCATAC	CTAGCAAGAC	TAGGAATAAA	3060
AATAGAAATT	AGGTAGCTAG	ATGTCATCTA	AGGTTATTGT	TACAATTTTC	GGTGCGAGTG	3120
GAGACCTGGC	TAAACGCAAG	CTCTACCCCT	CCCTTTTTAG	ACTATATCAA	TCCGGCAATC	3180
TTTCCAAGCA	CTTTGCCGTT	ATTGGAAGTG	CCCGTAGACC	TTGGAGTAAG	GAATATTTTG	3240
AATCTGTAGT	TGTCGAGTCC	ATCCTTGATT	TGGCAGATAG	TACCGAGCAA	GCCCAAGAAT	3300
TTGCTAGCCA	CTTCTACTAT	CAAAGCCATG	ATGTCAATGA	TTGGAACAT	TATATTGCTT	3360

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TGCGTCAATT ACAAGCTGAG CTTAATGAAA AATACCAAGC TGAACACAAT AAGCTCTTCT	3420
TCTTGTCTAT GGCACCTCAG TTCTTTGGAA CCATTGCCAA ACACCTCAAA TCTGAAAACA	3480
TTGTGATGG CAAAGGTTTT GAGCGCTTGA TCGTTGAAAA ACCATTTGGT ACAGATTACG	3540
CAACTGCAAG CAAGTTGAAT GACGAACTCC TAGCAACATT TGACGAAGAA CAAATTTTCC	3600
GTATCGACCA TTATCTTGGT AAGGAAATGA TCCAAAGCAT CTTTGCAGTT CGCTTTGCAA	3660
ACTTGATTTT TGA AACCGTT TGAACAAGG ATTTTATCGA CAATGTTCAA ATTACCTTTG	3720
CGGAGCGCTT GGGTGTAGAA GAACGTGGTG GCTACTATGA CCAATCCGGT GCCCTCCGTG	3780
ACATGGTCCA AAACCACACT CTACAACTTC TTTGCTCCT CGCCATGGAC AAACCAGCAA	3840
GCTTCACAAA AGACGAGATT CGTGCTGAAA AGATTAAGGT CTTTAAAAAC CTCTATCATC	3900
CAACTGATGA AGAACTCAAA GAACACTTTA TCCGTGGGCA ATACCGCTCT GGTAAGATTG	3960
ATGGCATGAA ATACATCTCT TATCGTAGCG AGCCAAATGT GAATCCAGAA TCAACAAC TG	4020
AAACCTTTAC ATCTGGTGCC TTCTTTGTAG ACAGCGATCG ATTCCGTGGT GTTCCTTTCT	4080
TTTCCGTAC AGGTAAACGA CTGACTGAAA AAGGAACTCA TGTCAACATC GTCTTTAAAC	4140
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CAACAGAAGG CTTCTCTCTT AGCCTAAATG GGAAGCAAGT AGGAGAAGAA TTTAACTTGG	4260
CTCCTAACTC ACTTGATTAC CGTACAGATG CGACTGCAAC TGGTGCTTCT CCAGAACCAT	4320
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CCCCACTTCA TGA CTATAAA GCTGGAAGCA TGGGACCTCA AGCCAGCTTT GACCTACTTG	4500
AAAAATTCGG TGCCAAATGG ACTTGGCAAC CAGATATCAC CTATCGTCAA GATGGTCGCT	4560
TAGAATAAAA AAATTTCTTG CAAGTTTATG CcTTGCAGGA TTTTGTCTTC TGATTAGATT	4620
AAACCTTCCA AGAGACCTTT CATAAAGTTT TCTGAGTTAA ACTCTCCAAT ATCATCGATT	4680
TTTTACCAA AACCAATCAA TTTTACAGGA ATATTGAGTT CTTACGAAT GGCTAGAACC	4740
ACACCTCCTC GAGCAGTTCC ATCAATCTTA GTCAAAACAA TTCCCGTTAA AGGTGTGATT	4800
TTGAAAATT CTTTGGCCTG TACTAGGGCA TTTTGACCTG TTGATGCATC AAGTGCCAAG	4860
AAGGTTTCAT GTGGTGCTTC TGGCACAACA CGTTTGATAA TACGACCAAT CTTTCCAAC	4920
TCAGCCATAA GGTATCCTT ATTTTGCAGA CGACCAGCAG TATCAATCAT GAGAATATCG	4980
ATACCTTCAG TCACGGCAGG TTCCATACCA TCAAAGACCA CGCTGGCTGG ATCAGCTTTT	5040
TCAGGTCCAG TTA CTACTGG AACATCTACT CGTCGGCCCC ATTCAGCTAG CTGAGCTACT	5100

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GCACCCGCAC GGAAGGTATC TGCTGCAACC AGCATGACCT TCTTACCAGC TTGTTTGTAG	5160
CGGTGGGCTA GTTTTCCGAT AGAAGTTGTT TTCCCAACAC CATTCACACC AACAAAGAGC	5220
ATAACTGTCA AGTTATCTTG GAAGTGGATG CTTTCATCGT AGCTACCATC CTTTTCATAA	5280
AGCTCAACCA ATTTCTCAAT GATGACACGA CGAAGTACAT CAGGTTTCTT GGCATTTTCA	5340
AGCTTGGCTT CGTAACGTAG TTCCTCOGTT AAGTTAGAAG CGACTTGGAC ACCAACATCA	5400
CTCATAATCA GCAGTTCTTC CAGTTCCTCG AAAAATTCTT CGTCAACAGA GCGGAAGTTA	5460
GCAAAGAAGG CATTCAGCG GGCACCGAAA CCTGTGCGAG TTTTCTTAAG ACTGCGGTCA	5520
TATTTTTCCT GAACAGTTTC TTCTGTTTGA GGAGCTTCTG GTTCAAGCAC TTCAGAATTA	5580
TTTTCTTCTA CAGTTCCTTC GTGCTCAAGC TTCTCTTCCT CTGGTAATTC TTCTGAGTTT	5640
GGTAATTCTT CTATTTCTTC TTGAGAAACC CCTACAGCTG GCTCTGAATC CTGACTTTCT	5700
TCAACTGTGT CTTGGATTTC CTCTTCTTGG AACACAGCTT GTTCAACAAT TTCAACCTCT	5760
GCTTCTTCCT GAGAACTTC CTCAACTTCT GTGAAGGTAG GATCAACATC TTCAGACAAA	5820
TCAAGATTTT CCAGAGCTTC TTTTACAAC TCTTCGATTT TAGGTTCTTC TTTTTTTCCG	5880
AATAGACGGT CAAACAATCC CATATCTTAG TTCTCCTTTA GCACATATTC TTCGATAGCC	5940
CAGGCGACAG CTTCTCATC GTTGGTCATC GCGTCACATA CATTTGCGGC TGCCTTTACT	6000
TCAGGAACAG CGTTTTGCAT AGCAACACCA AGACCTGCCC ATTCAATCAT AGAGAGGTCA	6060
TTGGCCTCGT CACCACAAGC CATCACTTGA CTTTGGTCGA TTCCAAGATG GCTGATTAGT	6120
TTTGCCAAAC CTGTTGCTTT ATGAACATTC TTTGGTGACC ATTCTAGCAA CATTTACGT	6180
GATTTAAAGA TTTCATATTG GTCAAACAAT TCTGGAGAAA TCTTCTGAAT GGCTGCATCC	6240
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TCAAAGTCCA CTGGAACAAA GGTCAAAGCT GGATTGAATT TGGCATAAAG ACTTTCTTGG	6360
TCCGATTGGA TTTGATAAAC TGTTCTTCT GAGATGGCAT CAAGAGGCAG TGATAATTC	6420
TCTGTTTCTT CATACAAACG TGCCACATCA TCATATGAAA AGACTGTTTT ATCAAGGATT	6480
TCTCCTGTAT TTTTCTGAAC TAATCCACCA TTAAGTAA TGGTATACTC ATCTTCCTGA	6540
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AATACGACCT TGATACCAG ATCACGCGCA gCTTGCAAGG TTTCTTGGT ACGATCCGTC	6660
AGCCTTTTAT CAGTAGTCAG CAAGGTCCCG TCCAAGTCCA ATGCAATCAA TTTTATATCT	6720
GCCATTATAA GCCCTCCATA TAAGCTATAA CCGACCGTTC CTTATGGTGA CCAATCACAG	6780
TCTTTGCTAA TTCTAAAATT TCAGGTCGTG CATTTTCAGG AGCTACAGGA TGTCCCACAA	6840
CCTGCATCAT ATGTAAGTCA TTAAGATTGT CTCCAAAAGC CATGACCTGA TCCATTGTGA	6900

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TACCAAGTTT TTTAACTAAT TCAACAATGG CCACTCCCTT ATCGACATAG TCCAGAACAA	6960
TATCAATGGA TTCAAAGCCA GTTGTCATGG CCTTAACACC AGGAACGTTT TCGTTTACCC	7020
AAGCCTCCCC ATCTTCCAGC GTTTCCTCTG TGAAGTTGGT TGTAATTTG AAAATGTCAT	7080
CTGTGATATC TTCCAACTC GCTACTTTT GGATATTTT ATTATAGTGC TGAATCACTT	7140
TCAAATAGGT CTCATCAACC GTATCTAGAA CATATGAACC CTTCTTACCC GTCAAGAGCA	7200
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CACGAGACAT AGTCGCTTCA TACAAGTCCT GACCTTGATA CTCTACCAA CTGCCATTTT	7320
CCGCGATGAA AATAATGTCA TCACGAACAC CAGCAAATAA TTTTCTAGA GACAGAAATC	7380
CCCGACCCGA AGCTACCGCA AAGTAAATCC CTTTTCTCT GTAGGAAACC AAGAGAGACT	7440
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CTACTAGTTT AATTGTCATC CTTCAATACT TTCTAAATCT TTTAACTTAA CTGAAACAAT	7560
CTTTGAAACA CCCGATTCTT GCATGGTCAC TCCATAGATG GAATCAGCCG CTGCCATGGT	7620
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ACCACCACTC ATGAGATTAA GAGACTGGAT TTTCTTGCCT GGTGGTTGGA CAGAAATTC	7860
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GAGCAATCT GTATCAACCT TCTCAAGATT ATCAATCTT TCTTGAAGAA GGCGCTGGAT	8520
TTCTCTTGT TCAAAATCAA GATTGTCAA TTCCTTGCCT AAGCGTTCAA TATCAGCAAC	8580
TTATAACGT TTTGCCCCT GCAGTTCTGT CTTAAGCAA CGAGCTTGG CTAGCTCTTC	8640

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CTGCAAGTTT TGATAGCGTT CTTGGATGGC ATTTTGTGTA GACTTAATCT CTTCAATCTC	8700
AGCTTCCAGA TTTTGCTTGT CACTGGAGAT TGCAGCAAGA CGCTCTTGGC AGTTTTCCTT	8760
ATCCGCTTGC CAATCTCCCT CGGAAAGACG ATCTATTTCC TCTTCTTGGG GTTTCCAAAG	8820
AGTTTCCAGT TCTTCAACTT GCTGACTAGT TTGCTGATAA GCGAGGAACA AGCCTTGCTC	8880
CTGAATACGT GCCTGCTCTC CTTGAGATTT AATAGCTTCT AATGACTCGG TCAATCTGGC	8940
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ATTGGCACCA CCTGCATAAG AACCACCTGT GCGCAACTCT GTCCCATCCA ATGTCACCAT	9120
ACGAACCTGA TAACGAACTT GCGGAGCTGC TGCACGCGCA TGTCTACGG TATCAAAGAT	9180
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CTCATCTGCC ATCCCAAGGA AACCTGGGCT TACAGCGATA GCATCTTGGT TCTGACTAGA	9300
AATCGTACGC GCCTTGATAG TGGTCAAAGG AAGAAAGGTT GCACGACCGG CTCTGTTCCG	9360
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ACTTGCCCCCT AAGGCAATCT CTAGGGCAGT TTGATAATAA ACATCAAAGG TCAGATGCTC	9480
ACTGACTGCA CCAATAATCC CACCTAGGCG ATCTTTTTCT TGGAGAACAC TCTTAACACC	9540
TGCATAAAAG TTACTATGAT TTCTCAGGAT ATTTTCCAAA CTTTGAGCTC TGGCCTGCTT	9600
GTTTTTGAGA TTATCCAGAC GGTCAAAGAG TTGGCTTTGT TGAGCTTGAT AGGAAGTTTT	9660
CTGCTCCTCT TGCTCCTTGG CAATAGCTTG GTAGTCAGCC AATAATTTCT GAACCTGCTC	9720
CTTGGCAGTT TCAAGCTCTT CCTTTTGCTG ACTAGCCTTC TCTTTAGCTA TAGCTAATTG	9780
CTCTTTCAGC TTTTCTAGTT GATCTGCTTG TTTTGAGAA AGCTGACGAC TATTTTCCAA	9840
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AAAGCGTTCA CGTAAGAGCT CAATCATCTG ATCAGGATCG TCTGAGAAAG CCAGCAATTC	9960
AGCTTCTAAA CGATTGAGTT TTTGATTATT TTGGACTAGA TTTCCCTCTA ACAGAGCTAA	10020
AGAGCTTTCT TTATCAGACT TTTCTTTGCT GAGTGAATTT CTCTTATCCT CCAAAGCAGC	10080
CAAACGGGCT TGTGCCTCCT GTTGATTCAA GGCCACTTGC TCGGACTCCA GTTTCGATAG	10140
GGCTAATTTT CTTTCTAAAT CACTAATCAG ACTAGTCAAG TCCATCAAAC TGCCTTGGTC	10200
TTTGGCCATT TCAGCCTGTA AATCTTGGCG TTGCTTTTTA AGAGTTTGAT TTTCTTCTTC	10260
TAATTTTTC ACGTTTTGGT AATAACTCAT CAAGAGTTCT TGAACCTGAG TCAACTCTTC	10320
TTCTGTCGAC TCTAGTTCAG CCTTATTTTC CTTGATTGTA GCAACCAGAA CATCTAAATA	10380
AATAGCCTTA CGTTGTCCTT CCAAGTCTAA AACTTACGG GCATTCTCAG CTTGCTTCTC	10440

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AAGAGGCTTG ATTTGATTAT CCAACTCGTA GATAATGTCC TCTAAGCGGT CCAGATTATC	10500
CTGAGTTTGC TGCAGTTTAC TCTCGGTTTC TTTTCTGCGA GTCTTGTATT TTAAAACTCC	10560
AGCAGCTTCT TCAAAAATAG CTCGTCGTTC CTCAGGCTTG GAATTAAAAA TCTCCTCAAC	10620
CTTCCCTTGG GAAATAATAG AGAAGGAATC TCGTCCCAAT CCAGTATCCA AGAAGAGGTC	10680
ATGAATATCA CGCAGACGGA CTTTCTTGCC GTCAATCTTG TATTCGCTAT CTCCACTACG	10740
ATAGACATGG CGTTCCACCC TGATTTCTTG ACCTGCATCC TTGATAAATC CGTCATGATT	10800
ATCCAGAGTC ACAACTACAG AAGCATAATT GAGCGGTTTG CGACTTTCGG TTCCAGCAAA	10860
GATGATATCC GGCATCTTGC CCCCACGGAG ACTCTTGACA CTAGACTCCC CCAAAGCCCA	10920
ACGCAGACTT TCTGTAATAT TGGACTTTCC AGATCCATTG GGTCCAACAA CTGCCGTCAC	10980
ACCTTGGTCA AAAACGACCT TGGTCTTATC AGCAAAAGAC TTGAACCCCT GAATTTGAT	11040
TTCTTTTAAA TACATGAATC CAGCCCCCTC TCAACGGCAT TTTTGGCAGC TTCCTGCTCT	11100
GCTAATTTCT TAGAACGACC TTGGCCTTGA CCGATGCTCT TACCTTCAAC AAGAACTTCT	11160
ACATCAAAAA CCTTATCGTG AGCAGGCCCT GTTTCAGAAA TCACCTGATA ACGAATAGCC	11220
ACATCACCAT TGACCTGAAG CAACTCTTGG AGATGGGTTT TATAGTCTGT AATCATCTCA	11280
AACTCGCCTG CTTCAACCTT AGGAATCATG ACTTGATAGA TAAATTCCTT GACCTTGGCC	11340
ACATCCTTAT CCAAAAGAAG GGCACCAAGA AAGGCTTCAA AGGCATCACC AAGAATGGTG	11400
TCACGATTGC GACCACCTGA TTTTCTTCC CCTTACCCA ACTTGATAAA CTGGTCAAAC	11460
TGGCAATCAC GCGCAAAACC AGCTAAACTC TCCTCACGGA CAATCATAGC ACGGAGTTTT	11520
GATAGGTCAC CTTCAGGCTT TTTAGGATAT TTTTATATA GATATTCTGA AATCAATAAC	11580
TGTAGAACAG CGTCTCCTAA AAATTCCAAG CGTTCATTGT GTGAAATTTT TAAGAGGCGG	11640
TGCTCATTGG CATAACTCGT ATGAGTAAAG GCAGTTTCCA GTAACTTTTT GTCTGCAAAT	11700
TCGATTGCAA AATGATTCTT TAGTACAGTT TGTAATCTT TCATACCAAC CTCTTTCTAA	11760
CTGATAATAG TCCTTTTTAT TATATCAAAA AAAGCCCCCT GAGTCACTCT AAAACGGGAC	11820
TGGAAAGCAT TTGGGAATTC TTTAGACAGA GATTCTCAGT TTTAGCGGCA AATTTGGGTC	11880
AGGATAAAGA AAAAAGCCCT ATTAAGGCT TTTAGGATG TTTACATCCA CCCTGAGGGA	11940
ATCGAACCCC CATCTCAAGA ACCGGAATCT TACGTGATAT CCATTACACT AAGGGTGGAA	12000
ACTTGTTTTA TTATAACAGA AATTGCTCT AATAACAAGT TTTTGGTCA AAGACCCCGT	12060
CTTAGTGGGA AGCATCCCCA TTCCAGATGG AGTTTTTCAC GATCACATAA TCAACGTGTT	12120
TAAGGTCAGC AACCTGACGT CCACCTGCAT AAGAAATAGC ACTTTGAAGG TCTTGTCCA	12180

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TCTCAGTTAA AGTGTCTTGC AGATGACCTT TAGCAGGAAG CAAGATACGT TTGCCTTCCA	12240
CATTTTGTGTA AGCACCTTTT TGATATTGTG AGGCTGAACC ATAATATTCT TTGAACTGTT	12300
CACCATCGAC TTCAATCGTT TTCCCTGGAC TTTCAATGTG TCCTGCAAAG AGGGAACCAA	12360
TCATGATCAT GCTAGCACCG AAGCGGATAG ACTTAGCAAT ATCACCGTGA GTACGAATTC	12420
CTCCATCAGC GATAATCGGT TTACGCGCAG CCTTGGCACA CCAGCGTAGA GCAGCCAACT	12480
GCCAACCACC TGTACCAAAA CCAGTCTTAA CCTTGGTGAT ACAAACCTTA CCAGGACCGA	12540
TTCCGACCTT AGTAGCATCC GCACCAGCAT TTTCCAATTC ACGCACAGCT TCTGGTGTTT	12600
CCACATTTCC AGCAATGACA AAGGTATCTG GCAATTCCTT CTTGATGTGT TGAATCATAG	12660
AAATCACGCT ATCCGCATGA CCATGAGCAA TATCAATAGT GATATACTCA GGAGTATCAG	12720
CCTTGAGCTG GCTAACAAAA TCATACTCAT AATCCTTAAC ACCGACAGAG ATAGAAGCAA	12780
TGAGCCCTTG ATTGTGCATT CGTTTAATAA AAGGAATGCG TCCTGCCTCA TCAAAACGGT	12840
GCATAATGTA GAAGTAACCA CCTTTAGCCA GTTGCTCTGC TACATTTTCA TCCAAAATCG	12900
TCTGCATATT CGCTGGCACA ACAGGTAGTT TAAAGGTGTG ATTTCCCTAAA GTGACACTTG	12960
TATCCGCTTC TGCACGGCTT TTAATGACAC ATTTATTTGG AATCAATTGA ATATCTTCGT	13020
AATCAAAAAT TGGAAATTCA TTTAACATAT CGATGTCTCG TTTCTTTTGT AATGACCTAC	13080
CTATGCTCTT GCATCACTAC GCCTTTTCCG ACGTTTCCTG G	13121

(2) INFORMATION FOR SEQ ID NO: 127:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 9578 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 127:

CCGAATGCAA TGTTTACGGT TGAAGTTGAA AATGGACATC AGATTTTAGC AACAGTTTCT	60
GGTAAAATTC GTAAAACTA TATTCGTATT TTAGCGGGAG ATCGTGTTAC TGTCGAAATG	120
AGTCCATATG ACTTGACACG TGGACGTATC ACTTACCGCT TTAAATAATC GAAAAACTTG	180
GAGGGATAAG AAATGAAAGT AAGACCATCG GTCAAACCAA TTTGCGAATA CTGTAAAGTT	240
ATTCGTCGTA ATGGTCGTGT TATGGTAATT TGCCCAGCAA ATCCAAAACA CAAACAACGT	300
CAAGGATAAG ATAGAAAGGA GAAAACATGG CTCGTATTGC TGGAGTTGAT ATTCCAAATG	360
ACAAACGCGT AGTAATCTCA TTGACTTATG TTTATGGTAT CGGACTTGCA ACATCTAAGA	420
AAATTTTGGC TGCTGCTGGA ATCTCAGAAG ATGTTTCGTGT ACGTGATCTT ACATCAGATC	480

877

AAGAAGATGC TATCCGTCGT GAAGTGGATG CAATCAAAGT TGAAGGTGAC CTTCGTCGTG	540
AAGTAAACTT GAACATCAAA CGTTTGATGG AAATCGGTTT ATACCGTGGT ATCCGTCACC	600
GTCGTGGACT TCCTGTCCGT GGACAAAACA CTAAAAACAA CGCCCGCACT CGTAAAGGTA	660
AAGCTGTTGC GATTGCTGGT AAGAAAAAAT AATATAGGAG GTAAAAGTCT TGGCTAAACC	720
AACACGTAAA CGTCGTGTGA AAAAGAATAT CGAATCTGGT ATTGCTCATA TTCACGCTAC	780
ATTTAATAAC ACTATTGTTA TGATTACTGA TGTGCATGGT AATGCAATTG CTTGGTCATC	840
AGCTGGTGCT CTTGGTTTCA AAGGTTCTCG TAAATCTACA CCATTCGCTG CTCAAATGGC	900
TTCTGAAGCT GCTGCTAAAT CTGCACAAGA ACACGGTCTT AAATCAGTTG AAGTTACTGT	960
AAAAGGTCCA GGTTCCTGGT GTGAGTCAGC TATTCGTGCG CTTGCTGCCG CTGGTCTTGA	1020
AGTAACAGCA ATTCGTGATG TGAATCCAGT GCCACACAAT GGTGCTCGTC CTCCAAAACG	1080
TCGCCGTGTA TAATCATCGC ATTACACTGC TTTTCGTTTA AGAGGGAGTA ACTAAATGAT	1140
CGAGTTTGAA AAACCAAATA TAACAAAAAT TGATGAAAAT AAAGATTATG GCAAGTTTGT	1200
AATCGAACCA CTTGAACGTG GCTACGGTAC AACTCTTGGT AACTCTCTTC GTCGTGTACT	1260
TCTAGCTTCT CTACCAGGAG CAGCTGTGAC ATCTATCAAC ATTGATGGTG TGTACATGA	1320
GTTTGACACA GTTCCAGGTG TTCGTGAAGA CGTGATGCAA ATCATTCTGA ACATTAAAGG	1380
AATTGCAGTG AAATCGTACG TTGAAGACGA AAAAATCATC GAACTGGATG TTGAAGGTCC	1440
TGCTGAAGTA ACAGCTGGTG ACATTTTGAC AGATAGCGAT ATTGAAATTG TAAATCCAGA	1500
TCATTATCTC TTTACAATCG GTGAAGGTTT TTCTCTAAAA GCGACTATGA CTGTTAACAG	1560
TGGTCGTGGA TATGTACCTG CTGATGAAAA TAAAAAGGAT AATGCACCAG TTGGAACACT	1620
TGCTGTAGAT TCTATTTATA CACCAGTTAC AAAAGTCAAC TATCAAGTGG AACCTGCTCG	1680
TGTAGGTAGC AATGATGGTT TCGACAAATT AACCTTGAA ATCTTGACAA ATGGAACAAT	1740
TATTCAGAA GATGCTTTAG GGCTTTCAGC ACGTATTTTG ACAGAACATC TTGATTTGTT	1800
TACAAATCTT ACTGAGATTG CTAAGTCAAC TGAAGTGATG AAAGAAGCTG ATACTGAATC	1860
TGACGACCGT ATTTTAGATC GTACGATTGA GGAACCTGGAC TTGTCTGTGC GTTCATACAA	1920
CTGTTTAAAA CGTGCCGGTA TCAATACTGT GCATGATTTG ACAGAAAAAT CTGAAGCAGA	1980
GATGATGAAA GTACGAAATC TTGGACGCAA GAGTTTGGAA GAAGTGAAAC TCAAACATCAT	2040
TGATTTGGGT CTTGGATTAA AAGATAAATA AAGGAGGAAT ACATGGCTTA CCGTAAACTA	2100
GGACGCACTA GCTCACAACG TAAAGCAATG CTTCCGATT TGACAACTGA CCTTTTGATC	2160
AACGAATCAA TCGTGACAAC TGAAGCTCGT GCTAAAGAAA TCCGTAAAAC TGTTGAAAAA	2220

878

ATGATTACTC TAGGTAAACG TGGTGATTTG CATGCACGTC GTCAAGCAGC TGCTTTCGTA	2280
CGTAATGAAA TCGCATCTGA AAACATATGAT GAAGCAACTG ATAAGTACAC TTCTACTACA	2340
GCACTTCAAA AATTGTTCTC AGAAATCGCA CCTCGTTATG CTGAACGTAA CCGTGGATAC	2400
ACTCGTATCC TTAACAACTGA ATCACGTCGT GGTGATGCAG CGCCAATGGC GATCATCGAA	2460
TTAGTATAAA ATCATCAATT TTGTTGAGTG TTATGATGAT GGAGTCTTGT GCTCTTAGTC	2520
TAGCTCTGGT CTACCGCTAG GATTTCCGGT CTAGCGGGAA CACTCATCAT AAGTTGGGAT	2580
AGTAGACGCT TGTTTACGAA APTGTTTTTT TCTTAAGAAC AACTTCGTAA GCAGGCGTTT	2640
TTGAGTATTT TCGTTAGAAT TATGCTATAC TATTTGAAAA GAATCCTGTT TAATGTTAAG	2700
GTTTCTTATT TTAAGAAGAA TTGGAGTTTA CTTATGAAAG CCATTATAAC TGTGTTGGT	2760
AAAGATAAAT CTGGAATTGT TGCAGGTGTT TCTGGTAAAA TTGCAGAATT AGGATTGAAT	2820
ATTGACGATA TCTCTCAAC TGTCTTGGAT GAATATTTTA CGATGATGGC TGTGTATCT	2880
AGTGATGAAA AGCAAGATTT TACCTATCTT CGTAATGAAT TTGAAGCTTT TGGGCAAACT	2940
TTGAATGTAA AAATCAATAT TCAGAGTGCA GCGATTTTCG AAGCTATGTA TAATATCTAG	3000
GAGGTCATCA TGGATATTAG ACAAGTTACT GAAACCATCG CCATGATTGA GGAGCAAAAC	3060
TTGATATTA GAACCATAC CATGGGGATT TCTCTTTTGG ACTGTATCGA TCCAGATATC	3120
AATCGTGCTG CGGAGAAAAT CTATCAAAAA ATTACGACAA AGGCGGCTAA TTTAGTAGCT	3180
GTTGGTGATG AAATTGCGGC TGAGTTGGGA ATTCCTATCG TTAATAAGCG TGTATCGGTG	3240
ACACCTATTT CTCTGATTGG GGCAGCGACA GATGCGACGG ACTACGTGGT TCTGGCAAAA	3300
GCGCTTGATA AGGCTGCGAA AGAGATTGGT GTGGACTTTA TTGGTGGTTT TTCTGCCTTA	3360
GTACAAAAAG GTTATCAAAA GGGAGATGAG ATTCTCATCA ATTCCATTCC TCGCGCTTG	3420
GCTGAGACGG ATAAGGTCTG CTCGTCAGTC AATATCGGCT CAACCAAGTC TGGTATTAAT	3480
ATGACGGCTG TGGCAGATAT GGGACGAATT ATCAAGGAAA CAGCAAATCT TTCAGATATG	3540
GGAGTGGCCA AGTTGGTTGT ATTCGCTAAT GCTGTTGAGG ACAATCCATT TATGGCGGGT	3600
GCCTTTCATG GTGTTGGGGA AGCAGATGTT ATCATCAATG TCGGAGTTTC TGGTCCTGGT	3660
GTTGTGAAAC GTGCTTTGGA AAAAGTTCGT GGACAGAGCT TTGATGTAGT AGCCGAAACA	3720
GTTAAGAAAA CTGCCTTTAA AATCACTCGT ATCGGTCAAT TGGTTGGTCA AATGGCCAGT	3780
GAGAGACTGG GTGTGGAGTT TGGTATTGTG GACTTGAGTT TGGCACCAAC CCCTGCGGTT	3840
GGAGACTCTG TGGCAGTGT CCTTGAGGAA ATGGGGCTAG AAACAGTTGG CACGCATGGA	3900
ACGACGGCTG CCTTGGCCCT CTTGAACGAC CAAGTTAAAA AGGGTGGAGT GATGGCCTGC	3960
AACCAAGTCG GTGGTTTATC TGGTGCCTTT ATCCCTGTTT CTGAGGATGA AGGAATGATT	4020

879

GCTGCAGTGC AAAATGGCTC TCTTAATTTA GAAAACTAG AAGCTATGAC GGCTATCTGT	4080
TCTGTTGGAT TGGATATGAT TGCCATCCCA GAAGATACGC CTGCTGAAAC TATTGCGGCT	4140
ATGATTGCGG ATGAAGCAGC AATCGGTGTT ATCAACATGA AAACAACAGC TGTTCTGTATC	4200
ATTCCCAAAG GAAAAGAAGG CGATATGATT GAGTTTGGTG GTCTATTAGG AACTGCACCC	4260
GTTATGAAGG TTAATGGGGC TTCGTCTGTC GACTTCATCT CTCGCGGTGG ACAAATCCCA	4320
GCACCAATTC ATAGTTTTAA AAATTAAGAA AATAGGAGAA ATTTTAAGTT CTATTTAAGA	4380
TTAGACGTGT ATACTATAAT CATTAAATAA AGACCTCCTA ATATTATTTG AAACAGATAA	4440
CACTGAATTA GTTTGAATTT GATTTTCATC TAATATCTTT ATTTAATGAA CTCCTAAACT	4500
TTTTCATAAT AATCTCCTTC AAAAGTCGCC TGTATGGGTG GCTTTTATTT TATCATTCT	4560
GATATAATAG AAGCAAACGG AGGACGGAAA ATCGTAAAAG TACGATTGTA TTTGGTACGT	4620
CATGGCAAGA CCATGTTTAA CACGATTGGT CGCGCGCAAG GTTGGAGCGA TACTCCCTTA	4680
ACTGCTGAAG GTGAACGAGG GATTCAAGAG TTAGGAATCG GTTTGCGAGA ATCTGATCTA	4740
CAGTTTGAGC GTGCTTATTC GAGTGATTCT GGTCGTACCA TTCAGACCAT GCGAATTATC	4800
CTTGAAGAAC TTGGCTTGCA GGGGGAAATC CCTTATCGCA TGGACAAGCG TATCAGAGAA	4860
TGGTGTTCG GTAGTTTTGA TGGAGCCTAT GATGGCGATC TTTTCATGGG CATTATTCCT	4920
CGTATCTTTA ATGTGGACCA CGTTCACCAA TTGTCTTATG CTGAACTGGC TGAGGGCTTG	4980
GTAGAGGTCC ATACAGCTGG TTGGGCTGAA GGCTGGGAAA AACTCAGTGG CCGAATCAAG	5040
GAAGGCTTTG AAATGATTGC AAAAGAAATG GAAGATCAAG GTGGAGGTAA CGCCCTTGTT	5100
GTCAGCCATG GAATGACTAT TGGAAACCATT GTTTATCTGA TTAATGGCAT GCATCCGCAT	5160
GGTCTGGATA ATGGTAGCGT GACAATCCTT GAATATGAGG ACGGCCAGTT TAGGGTTGAA	5220
GTGTCTGGTG ACCGTAGTTA CCGAGAGCTA GGACGTGAGA AGATGGAAGA AGGCTCTATT	5280
TAATCAGTCT AGACTTGCTT GCCATGAGCT AGGGATTTGA TAAGAATATC AAGATAAGAA	5340
AAACAGCCG AGGGCACTCC TTTCGGCTGT TTTTGATGTG GAAAACTAAA GTGTAATGCT	5400
ATTGCTTTTA GAGATTTTCA TAAACAAGAG CAAGGAACCT ACTGTTAGAA CAGTCAGGAT	5460
AGTTGACAAG GTTGCGGCTA CACCGTAATT TCCTCTGAGA ACCTCTGTAT AAATAGCTAC	5520
AGTCATTGTT CTTGTTTTGA CATTGTAGAG GAGGATAGAA GTAGAGAGTT TTGAAATCAT	5580
TGTGACTCAA GATAAGATGG CTCCAGAAAT GATACCAGAT AGCATCATTG GAGTTGTAAT	5640
CTTAGCAAAG GTATTGAGAC GACTACTTCC TAAGCTTTCA GCAGCTTCTT CAATACTTGG	5700
TGCTATTTGT TGTAAGCTAG CAACAGATGA GCGAATAGTA TAAGGTAATC TTCTGGCAGA	5760

880

TAGAGACATA ATCAAGATGA AAGCAGTCCC TGTAATCATA AGAAATCCAC TTCCAAATAG	5820
ACCAGTATTG AAGGAAGAAA TGAAGGCAAT CCCTAGAACG GTTCCTGGTA CAATATAAGG	5880
TACCATACTG AGGCTGTCAA TTAAGTTTGT AAACAAATTC CGTTTTCTAA CGGCTAGGTA	5940
GGAGATAAAT GTCGCAAATA GAACAACTAG AACTAAGGCA ATCAAAGGGA TACGAATGGT	6000
AFTGAAAATA GCAGATCCCA TACGATGGAA AGCTACCTTG TAACTGTTTG GAGAATAACC	6060
TTTAACAGAT ACCATACCTG ATGTTTTTAG GAAAGAGGTA TAAATTAAGT AGATTTGAGG	6120
TAAAACAGAG ATAAAGATAA TTCCGTAGAC TGTTGCATAA ATGGCAGCCA TTTTTCCTTT	6180
TGTAGTTTTT TTAGGCTCAA TTGGATGGAG CAGATTCATG CTGAAACTGT AGCGGTTTGC	6240
AATGTGTTTT TGGATAAGGA AAATTGCCAA GGCAATGATA ATCGCCATAA TTGCAAAAGC	6300
AGAATTTCTT CCAACCTCGC TAATAAATTG GGTATAAATC AGGACAGGGA AAGTCCGATA	6360
CCCTTCGCCA ATCAACATAG GCGTTCCAAA GTCTGAGAAT GCTCTCATAA ATACAAGCAA	6420
GGAGCTGCTA GTAAGGTTGG AACTAGGAGA GGTAACAA CCGTTACGAT AGGTTTAAAT	6480
CCGAAGGACC CCATGCTTTC AGCTGCTTCA AGTAGAGAAT TGTCAATACT GTTCATTGTT	6540
CCAGCAACAT ATAGAAATAC CAGTGGGAAT AGTTGCAGTG TAAAGACAAG TACAATTCCT	6600
TTGAATCAAT AAATATCGAT AGCTGGAAGA TAAAGGGCAT TTGTCAAAAA TTTAGTGATC	6660
ACCTCATTTT GTCCTAGCAA GAGAACCAG GAGTAGGCTC CTACGAAAGG AGCTGACATG	6720
GAAGCAATGA TAATCAATAT TTGTAGAAAT TTCTTCCCCT TGAAGTCATA CATAGAGAAG	6780
AGATAAGCTA ATAGGGTTCC TACAACCTAAG GAAGTGATAG TAGCGGTAAT GGAAACCTTG	6840
AAACTGTTGA CTAGTGTCTC AGAGTAGTAG GCTTTACTAA AGAAAGTGAC AAAATTAGCT	6900
AGTGAGAATT GTCCTTCATG TATAAGTGCT TGCTTGAGCA CCGTAACGAT AGGATAAACG	6960
AGAAAGATAG GATAGGTAAG AAAGAGGAAG AAAGAGGAAA CTGTCCAAAT ATTTAGTTTT	7020
TTACGTTCCA TGGTTGACTC CTTTTATCAG GTTTGGGAA CCATCTGCAG AAAAGATGTT	7080
TAATTTTTGC GTATTGATTG GTAGACGAAT ACGATTGCCT TTTTGTAGAT CTTCTTCAA	7140
AGTTGATTCT TCACTAACTT GAATTTTTGA GGCAAAACCT GTCTCAATGA AATAATCCGT	7200
ATTTAGTCCA AGATAGACGC TATCTCTAAT AGTTCCTTCA ATATCTCCAG ATTCATCTTT	7260
GATAAACTCT TCGGGACGAA TGCTTACATG AATAGCTTGC TCCTCAACCT GATCAAGAGC	7320
TGGCATTCTA AGGGCATAGC CATCTGAAAA GACGATATAA GCGCCGTCGC TCCGTTTTTC	7380
AAGATTGGCA GGGATAATAT TTGTGCGTCC GATAAAGGTT GCCACAACT CATTAGCTGG	7440
TTTATGATAG AGTTCTTTTG GTCGGCCGAT TTGTTGGATC ACCCCATCTT TCATAACAGC	7500
AATTTGGTCT GAAATAGCCA TGGCTTCTTC TTGGTCGTGG GTTACATAAA CAGTTGTAAT	7560

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TCCCACTTCG TGTTGGATTT CTCGGATGGC TTGACGCATA TCCAAGCGAA GTTTGGCCTC	7620
CAGATTACTA AGTGGCTCGT CCATGAGGAG AACACTTGGA TTAACCGCTA AGGCGCATGC	7680
CAAGGTGACA CGTTGTTGTT GTCCACCACT GAGTTTATCG GGCTTTTCGAT CCGCATATTG	7740
AGCAATTTGC ATGAGTTCAA GATACTTGTT GGTCTGTTGA ATCAATTCTT CTTTGGAAAC	7800
CTTCTTTTGC ATAAGACCAA AAGCAACGTT GTCTCGGACA GTCAAATGTG GGAAAATAGC	7860
GTAGTTTTGG AAAACCATCC CGATATTGCG TTTGCTGGGT TCCATATTAT TGATTTTTGT	7920
ATCATCGAAG TAAAATTCTC CACCTTCGAT ACTGTTGAAA CCTGCAATCA TACGAAGAAG	7980
GGTCGTTTTC CCACATCCTG AAGCTCCAAG AAGGGTAAAG AGACTTCCTT TTGGAATTGT	8040
AATGTTCAAA TTCTCAATAA CAGGGACATC GTGGTAGATT TTTTGGCGT TAATAATTTT	8100
GATCTCACTC ATAGTGAACC TCTTTTACTG TTTAGATTGG ATATCTGTAA AGACTTCGTT	8160
GTATTTCTTA ACGATATCTG ATTTATTCTT GATGACATAA TCATAATCTT CAGTGAGTGT	8220
TTTGATTTTG TCAATTGGTT TCATGTTTTC GCTTGTTTTA GCATTTTTAC GAACAGGACC	8280
GTTAGTAGTG GTTGTAACCA GTGTATCTTG TACTTCTTGA GAGATAATAA AATCGATAAA	8340
TTTCTTGGCA TTTTCCATAT TTTTAGATTT TTTAACGATA GCAGCACTAG CAGGTAGGAA	8400
GACGGTTCCT TCTTTTGGAT AGACTACCTT AATGTTAGCT CCGTCATTTA AGAGTTTAAC	8460
TGCTGGATCT TCATAAGAGA GACCAACAGC CATTTCTCCA TCAGCGACTA CTTTATAGAC	8520
ACTAGATGAA CTTGAACCGA TTTTACCATC AATAAGTGTG AAAAGATCTT TTACATAAGA	8580
CCAAGCCTTA TCATCTTTGT AACCACCTTG AGCTTGTAGC ATATTTGTTA ATTGAGCAAA	8640
GGCGCTAGAA GAGTTTGCTG GGTGAGCAGT TGCGATTTTT CTTTTTAGTT CAGGTTTGAA	8700
AAGATCGTTA TATCCTTCGA TGTTTCATGCC TTTAGTTAAA TCAGGGTTGA CGATTAAAAC	8760
ACTACCATCT AGTGATATAAG GAGTAGAGTA GCCAGTTGTG TTTGATATT CTTTGATAAC	8820
ATTATCATTT TCTTTTGAAG TATAGTTTTT AAAGAGTTCT CCGTGGGTAG TATATTGTGT	8880
ATAAGAACCA CCAAAGATAA CATCAGCTAC AGGAACTTCT TTTTCTGACT CTAGTTTTTT	8940
GAAAAGTTCT CCAGTACCAG CTTGAATCAG TTCTACTTTG ATACCATATT TTTCTTCAAA	9000
GGCAGGAATA GTTGCTCCAA TTAAGCCCTC TGAGTTTGGT GAATAAACGA CTAGCGAACC	9060
GCCGTCTCCT TTATCAGATG AACTGTCATC GGCAGATTCA TTAGAAGAAC AAGCAGCATA	9120
ATACATCCAT TTCTTTTCA TGATGGATAC CTCCGTTGTG TTATTTAAGT TTATTTTAAA	9180
ACAATGTAAG CGTTTTTAAA ACATACAATT CTATTCTATA GTGTATTGAA TCTATAACAG	9240
TACACTTTGA CTGCTAAAAT ATTTCTATAA ATTAATTTGA CTTTCCTGAT AGAGATGTTC	9300

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ACATCTTATT TCAATTCAC	ATATTAGAGT AAAATTCTCT	ACAAAAAGAA GAATAGCCTA	9360
TTTTACTATT CTTCTGAGTG	ATTTCAATTC CTTTGGGGAA	ATATGGAGAT ACTTTTTTAAA	9420
TCCTGACAAA TGGTTGTTTC	TTTTTCTAAA TCGGTGATAC	TGTATCGGAG AATGCGCGTG	9480
AGGTCACAAA GGCTGCGATA	GAGCTTCTAT GGAGAATTTT	TTTTTGGAGA GATTTTTTTAA	9540
AGGAATGAGA CATCCGCTAC	CTCCTTGGAA GGTTTTTG		9578

(2) INFORMATION FOR SEQ ID NO: 128:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 13440 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: double
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 128:

CGGGCTGTTG TGACGATTCT	TATTTCTATC TGTGTTATCT	TTTTGGGAAC TATTTTGGGT	60
GTTGTCTTGG CTTTTGGGCA	ACGTTCAAAG TTAAACCGC	TTGTTTGTTT GGCCAACTTG	120
TACGTTTGGG TTTTCCGTGG	GACACCGATG ATGTTTCAAA	TTATGATTGC CTTTGCTCTT	180
ATGCATATCA ATGCTCCGAC	TATTCAGATT GGAATTTTAG	GTGTTGATTT TTCGCGTCTG	240
ATTCCAGGGA TTTTGATTAT	CTCTATGAAT AGTGGTGCTT	ATGTTTCGGA GACTGTTTCGT	300
GCCGGAATCA ATGCGGTTCC	AAAAGGTCAG CTAGAAGCGG	CTTATTCGCT AGGGATTCGT	360
CCTAAAAATG CGATGCGTTA	TGTGATTTTG CCACAAGCAG	TCAAAAATAT CTTGCCAGCA	420
TTGGGGAACG AATTTATCAC	CATTATCAAG GACAGCTCCC	TCTTATCAGC TATTGGGGTC	480
ATGGAGTTGT GGAATGGGGC	TACAACAGTT TCTACAACAA	CCTATCTACC TTAAACACCA	540
CTTTTATTTG CAGCATTTTA	CTACTTGATT ATGACCTCTA	TTCTGACAGT AGCCTTGAAA	600
GCTTTTGAAA AACATATGGG	ACAAGGAGAT AAGAAATAAT	GACAGAAACC TTGATAAAAA	660
TTGAAAATTT ACATAAATCC	TTTGAAAGA ATGAAGTATT	GAAGGGCATC AACCTCGAGA	720
TTAAAAGAGG AGAAGTTGTC	GTTATCATCG GTCCTTCAGG	GAGCGGGAAA TCTACCTTGC	780
TTGCTCTAT GAATTTGTTG	GAAGAAGCAA CCAAGGGGAA	GGTTATCTTT GAGGGAGTCG	840
ATATTACGGA CAAGAAGAAT	GACCTGTTTG CCATGCGTGA	GAAGATGGGC ATGGTTTTTC	900
AACAATTCAA TCTCTTTCCT	AATATGACTG TGATGGAAAA	TATCACCTTG TCCCCTATCA	960
AGACCAAAGG TGACAGTAAG	GCCGTTGCAG AGAAAAGAGC	TCAGGAACTT TTGGAAAAAG	1020
TTGGTTTGCC AGATAAGGCA	GACGCTTATC CACAGAGTTT	GTCAGGTGGC CAGCAACAGC	1080
GGATTGCCAT CGCGCGTGGG	TTGGCTATGG AACCAGATGT	TTTGCTCTTT GACGAGCCAA	1140

883

CTTCAGCCCT AGATCCTGAG ATGGTTGGAG AAGTTCTGGC TGTTATGCAA GATCTAGCCA	1200
AGTCAGGAAT GACCATGGTT ATCGTAACAC ATGAGATGGG ATTTGCCCCG GAGGTGGCAG	1260
ATCGTGTCAT CTTTATGGCA GACGGTGTGG TTGTTGAAGA CGGAACACCT GAGCAGATTT	1320
TTGAACAAAC CCAAGGACAA AGGACTAAAG ACTTCTTGAG TAAGGTTTTA TAAGTTAGCT	1380
TTGTTTAGCT ATTTGTAGCC AGCTTTAAAC GTTAAAGAGA AGATTAGTGA AAAGCTCAAC	1440
CAGAGCTTTT TCTTATAGTT TAAAGCTATA GGATTGCCTA GGAAAGAAGT GTTAGAGCTA	1500
CATTGTATTT TTTGGTATAA TTAAAGATAT TTGTAAGAAA AGAGAAGTGA TATGACACAG	1560
ATTATTGATG GGAAAGCTTT AGCGGCCAAA TTGCAGGGGC AGTTGGCTGA AAAGACTGCA	1620
AAATTAAAGG AAGAAACAGG TCTAGTGCCT GGTTCGGTAG TGATTTTGGT TGGGGACAAT	1680
CCAGCCAGCC AAGTCTACGT TCGCAACAAG GAGAGGTCAG CCCTTGCGGC TGGTTTCCGT	1740
AGCGAAGTAG TACGGGTTCC AGAGACCATT ACTCAAGAGG AATTGTTAGA CCTGATTGCT	1800
AAATACAATC AGGATCCAGC TTGGCATGGG ATTTTGGTTC AGTTGCCATT ACCAAAACAC	1860
ATTGATGAAG AGGCGGTTCT ATTGGCTATT GACCCAGAAA AGGATGTGGA TGGTTTCCAT	1920
CCTCTAAACA TGGGGCGTCT TTGGTCTGGT CATCCAGTCA TGATTCCTTC GACACCGGCA	1980
GGAATTATGG AAATGTTCCA TGAATATGGG ATTGACTTGG AAGGTAAAAA TGCAGTCGTC	2040
ATCGGTCGAT CCAATATTGT CGGAAAACCT ATGGCCCAGC TTCTTTTGGC AAAGAATGCA	2100
ACAGTAACCT TGACTCACTC ACGTACTCAT AATCTTTCCA AGGTGGCTGC AAAAGCAGAT	2160
ATTCTGGTTG TTGCAATCGG TCGTGCCAAG TTTGTGACTG CTGACTTTGT CAAACCAGGT	2220
GCGGTAGTCA TTGACGTTGG GATGAACCGC GATGAAAATG GTAAGCTCTG TGGGGATGTT	2280
GATTATGAGG CGGTTGCCCC ACTTGCTAGC CACATTACGC CAGTCCCTGG AGGTGTCGGT	2340
CCTATGACCA TTACTATGCT GATGGAGCAA ACCTATCAGG CAGCACTTAG GACATTGGAT	2400
AGAAAATAAG ATAAAAATTT TCTGAGGAAA GTGTATTTTC TATAGCTATA TCTAAAATGA	2460
TAGAAATGAA TATTAAATTT TAGAAATAAG TTTATAAAAG GAGGTTTGGC CCTCCTTTTT	2520
GTTGTATAAT GGAGTGAGGT GATTAGATGA TTTTAAAAAT TTATAATGGG GAATATAGTT	2580
TACAATGGGA TGGAAATATAC TACTTAGCAC TAATTGATTA TCCAAATATT CAAGAGTGGG	2640
AATTAGAAAA AATTGCTAAA TTTATAGCTT ACGAAAAACT TCATAAACGT CAAACAAGTA	2700
TTGAGTGTGC TGATTCTTGT TTAaaaaaag AAATTTTAGA TTACATCTGT CAGCATCCCT	2760
TTCTGCCACC ATTTACTCCT ACAGATAAAA GAGTAGCCTC GACTTATGAC CTACATAAGA	2820
GGTTAGTGAC TTCAGACTAC TGTAGTCATA CTACGACTAT AGATGCAGCG ATTTCTATTT	2880

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TTAAAACTGG TCGTCTTTTA TCTGCTGTGA AAGCCTTTGG GCGAGATGCT GAGGAGTTGG	2940
TTTTGGATAG TCGAAATGCT GCATCTGATC CGATAGATTA TTTTGACTAT GTCATGTTAG	3000
GGTGGTCAAA TACAAGTTCT GGTATCGAT TGGCGATGGA GCGTTTATTA GGTGAGCTC	3060
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CAGATTTGAT TAAAGTTCCT GGTATATTTT TTGATGGTTA CCATGCTGTA AAAATTAAGG	3180
ACATGCTTAA TTTATTAAGT GAGTTGTATA TTTGCATTAT TCCAATCAT AATAAGAGCC	3240
AATTTGAAAA TATTATTCCA ACCAAAATAC AAGATAGGGT GTATTATCTT GACTATGCTG	3300
GAGAAGACTT AGAAGAGTGG ACTAAGAAAG TCTATCAAGT TGTTTTAAAA CAATCAGATA	3360
AAGGATAGTT GAGGAAAAAA CGATGAAAGT GATTGATCAA ACCTTACTAG AAAAAGTCAT	3420
TATTGAACGT TCTTGTACAA GTCATAAAGG AGACTACGGT CGTCTGCTGT TGCTTGGTGG	3480
GACTTATCCT TATGGTGGTG CCATCATCAT GGCTGCTTTA GCAGCTGTAA AAAGCGGTGC	3540
AGGATTGGTA ACCGTTGGAA CGGACAGGGA AAATATCCCT GCTCTACACA GCCATTTGCC	3600
TGAGGCTATG GCCTTTTCTC TGCAAGATCA GTAATTGTTA CAAGAGCAAT TGGAGAAGGC	3660
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CATCCTTGCT AGGACAAGTT TGTTGTTTCC ATCTAACCAG CTTATCTTAA CTCCCCACCA	3840
AAAAGAATGG GAAAACTGT CTGGTATTGC TATTGAAAAG CAAAACGAAG GTACAACATC	3900
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ACAGGCCAGT CTCTACGAAC GTGTGGCAGT AGCAACCCAT CTTCAATTCAG CCATAGCCCA	4140
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TTCTTAATTC ACAAAAAACG AACGTTTAGT ATTCTTCTTG CTAAGAAACT AAATTTGTTC	4320
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CTTTAATGGA GGTGTTTGAG TGGAAAATCT GAAGAAAATG GCAGGTATCA CGGCTGCTGA	4560
ATTTATCAAG GATGGGATGG TTGTAGGGCT AGGAACAGGT TCTACTGCCT ATTATTTGT	4620
CGAAGAAATC GGTGTCGAA TCAAGGAAGA AGGCTTGCAG ATTACAGCTG TGACGACTTC	4680

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TAGTGTGACC	AGTAAACAGG	CTGAAGGGCT	CAATATCCCC	CTCAAGTCTA	TTGACCAAGT	4740
AGACTTTGTC	GATGTGACAG	TCGACGGGGC	GGATGAAGTG	GATAGTCAGT	TTAATGGAAT	4800
CAAAGGCGGT	GGTGGTGCCC	TTCTCATGGA	AAAGGTGGTC	GCAACACCAT	CAAAAGAATA	4860
CATTTGGGTG	GTGGATGAAA	GCAAGCTGGT	CGAAAACTA	GGTGCTTTTA	AATTGCCAGT	4920
AGAAGTGGTT	CAGTATGGTG	CAGAGCAGGT	CTTTCGTCAT	TTTGAACGAG	CTGGCTACAA	4980
ACCAAGTTTC	CGTGAAAAAG	ACGGCCAACG	TTTTGTGACC	GATATGCAGA	ATTTTATCAT	5040
TGACCTCGCC	TTGGATGTCA	TTGAAAATCC	AATTGCTTTT	GGACAAGAAT	TGGACCATGT	5100
CGTTGGTGTT	GTGGAGCATG	GTTTATTCAA	CCAAATGGTG	GATAAGGTAA	TCGTTGCTGG	5160
ACGAGATGGA	GTTTCAATTT	CAACTTCAAA	AAAAGGAAAA	TAGAAGGGGG	CATAAGATGT	5220
CTAAATTTAA	TCGTATTCAT	TTGGTGGTAC	TGGATTCTGT	AGGAATCGGT	GCAGCACCAG	5280
ATGCTAATAA	CTTTGTCAAT	GCAGGGGTTC	CAGATGGAGC	TTCTGACACA	CTGGGACACA	5340
TTTCAAAAAC	AGTTGGTTTG	AATGTCCCAA	ACATGGCTAA	AATAGGTCTT	GGAAATATTC	5400
CTCGTGAAAC	TCCTCTTAAG	ACTGTAGCAG	CTGAAAGCAA	TCCAACCTGA	TATGCAACAA	5460
AATTAGAGGA	AGTATCTCTT	GGTAAGGATA	CTATGACTGG	ACACTGGGAA	ATCATGGGAC	5520
TCAACATTAC	TGAGCCTTTC	GATACTTTCT	GGAACGGATT	CCCAGAAGAA	ATCCTGACAA	5580
AAATCGAAGA	ATTCTCAGGA	CGCAAGGTTA	TTCGTGAAGC	CAACAAACCT	TATTCAGGAA	5640
CGGCTGTTAT	CTATGATTTT	GGACCACGTC	AGATGGAAAC	TGGAGAGTTG	ATTATCTATA	5700
CTTCAGCTGA	CCCTGTTTTG	CAGATTGCTG	CCCACGAAGA	CATTATTCCT	TTGGATGAAT	5760
TGTACCGTAT	CTGTGAATAC	GCTCGTTTCA	TTACCCCTGA	GCGTCCTGCC	CTTCTTGGTC	5820
GCATCATTGC	TCGCCCTTAT	GTAGGTGAAC	CAGGTAACCT	CACTCGTACG	GCAAACCGTC	5880
GTGACTTGGC	TGTATCTCCA	TTTTTCCCAA	CTGTTTTGGA	TAAATTGAAT	GAGGCTGGTA	5940
TCGATACTTA	TGCTGTGGGT	AAAATCAACG	ATATCTTTAA	CGGTGCTGGT	ATCAACCATG	6000
ACATGGGTCA	CAACAAGTCA	AATAGTCATG	GAATTGATAC	ACTATTGAAG	ACTATGGGAC	6060
TTGCTGAGTT	TGAAAAAGGA	TTCTCATTCA	CAAACCTAGT	TGACTTTGAT	GCCCTTTACG	6120
GCCATCGTCG	TAATGCTCAC	GGTTACCGTG	ATTGCTTGCA	TGAGTTTGAT	GAACGCTTAC	6180
CTGAAATTAT	CGCAGCTATG	AGAGAGAATG	ACCTTCTCTT	GATTACTGCG	GACCATGGAA	6240
ATGACCCAAC	GTATGCAGGA	ACGGATCACA	CTCGGGAATA	TATTCCATTG	TTGGCCTATA	6300
GCCCTGCCTT	TAAAGGAAAT	GGTCTCATTG	CAGTAGGACA	TTTTGCAGAT	ATTTGAGCGA	6360
CTGTTGCCGA	TAACTTTGGT	GTGGAACTG	CTATGATTGG	GGAAAGTTTC	TTAGATAAAT	6420

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TGGTATAAGA TGACGCGCTA TGCTTTGCTG GTGAGAGGTA TCAATGTTGG TGGTAAGAAT	6480
AAGGTCGTCA TGGCGGAGCT TCGTCAAGAA TTGACAACT TGGGACTGGA AAAGGTTGAG	6540
AGCTACATCA ATAGTGGCAA TATTTTCTTT ACTTCGATAG ATTCCAAAGC CCAATTGGTT	6600
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CCTTTCTACC GCCACATTAC TATTCGTAAT GCTAAAACCT TTGACAAAAT TGGTCAAATG	6960
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CTTGGAGAAT TGGCAGAAGA AATCGAAAAT CCAGTTGTAG TAGACTATGC TGAGATTCCA	7140
AACTGGGGCC GTTCAACAGT AGTCGGTCAT GCTGGTAAAT TGGTATATGG TGAAGTGGCA	7200
GGTCGCAAGG TCTTGGCTCT TCAAGGGCGT TTCCATTTCT ATGAAGGGAA TCCTCTGGAA	7260
GTGGTGAATT TCCCAGTTCC TGTGATGAAA GTTCTTGGAT GTGAAGGTGT TATTGTAACC	7320
AATGCAGCTG GCGGTATCGG ATTTGGTCCT GGTACCTTGA TGGCTATCTC AGACCATATC	7380
AACATGACGG GGCAAAATCC ATTGATGGGT GAAACTTGG ATGACTTTGG CCCACGTTTC	7440
CCAGATATGT CTAGGGCCTA CACACCAGAA TACCGTGCCA CTGCCCATGA AGTGGCTAAA	7500
AACTTAATA TCAAGCTTGA TGAAGGTGTC TATATCGGAG TTAGTGTCC GACTTATGAA	7560
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ACTAACTTTG CGGCCGTTT CCAAGAAGAA CTCAATCACG AAGAAGTTGT AGAAGTGACT	7740
GAACGTGTTA AAGGTGATTT CAAAGGCTTG CTAAAGCGA TTCTTGCTGA ATTGTAAGAA	7800
AAAAGATTTA AAAGGGGGAG TGCCTCTGTT TTTTCAGGAT TGAAGTGCCTA TCCGGATTAA	7860
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GAATTTCTCA GTCTTATCAT ATATAGCACA ATGAGATTTT GCTTGAGTCT GCTTGTAAT	8100
AAACGAAAAG AAAGATAAGA AATAATGAAA ATTGGTCAAC GAATTATGCG CTTTGGCATA	8160
AAAAATTAAG TATCGGAGTT GTATCTGTTG TAGTCGGCTT TGATTTCTAG CTCCAGCTGG	8220

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AATTTTCAGCC AATGAAGTAA AGCAAGATGT AACATCTGAA GTGGTAATAG GTGTGCTAGA	8280
TTCTAAGGAG GAATTGAAAG AGTCAGAAAA TGATGCTCCA AAAC TAGAAA CTCCTCTTAG	8340
AGAGGAGCCA AGACTAGCTC CTCAAACGCT TCCGGAAGCA AGTGAAGTTC TTGAAAACAA	8400
AAGGGAAGAG TCAAAAGTAG AGATAACATA ACCAGCTCAA GCGGATGATA TCCGCAAGGT	8460
TGTTGGGGAA TTAGCCAAGG ATATAAGTAT TACTAAGTTG TATATGACAG GTCATTCTCT	8520
TGGATGTTAC CTAGCTCAGA TTGCAGCGGT TGAAGCTTAC CAAAAATATC CTGATTTTTA	8580
TAACCATGTA TTGAGGAAAG TGACAACTTT CAGTGCTCCT AAAGTGATTA CTTCCAGAAC	8640
TGTTTGGAAT GCTAAGAATG GTTCTGGGA TGTGGTTTG GAAAGTCGTA AATTAGCTGT	8700
TAGTGAAAA ATTAAGCATT ATGTGGTTGA TAATGACAAT GTTGTGACTC CCTTGATTCA	8760
TAATAATCGT GATATTGTTA CATTTACAGG TAATTCACGC TTAAACACC GTTCTCGTGG	8820
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GGATAAACAT GGTATCGTG ATCCGAAATT GGATAAAGTG CGATTCTTTA AGAAACAGGC	8940
TCTGCCTCGA TCTTCTAGTC AACCAAGCGC TGAACCAATG GAAATATTG CCTCAGGAAA	9000
ACAGGTTACT CAAAGTTCGA CAGCTTTCGG AGGAGATGCT AGAAGAGCTG TGGATGGCAA	9060
AGTCGATGGT AACTATGGTC ACAATTCTGT CACTCATACA AACTTCCAAT CTAAGCCTTG	9120
GTGGCAAGTA GATTTGGCTA AAGAAGAAAC CATTGCGCAA ATCAATATTT ACAACCGAAC	9180
AGACACTGCC CAGGATAGAT TGGCAAACCT TGATGTCATT CTTT TAGACA GTTCTGGTAA	9240
AGAAATTGAG TGAAACGTA TAACATCTCC TAAAGATGTG TCAGCACAAA TTACGATTAA	9300
CCATAAAAAA GCGCGCTATG TTCGGATTGA GCTAGAAGGC TATAATGCCC TCAGTCTTGC	9360
AGAAGTTGAA GTTTCTGCT TTATAGCTAC GAATGCTGAA ACGGCGACAC AAGTTTCTAA	9420
GCCAGTTCAA CCAATCAGTC AGACTCCTGT GAAGGATAAA ACATTGACAA TTCAACACAG	9480
TGGAGCTTAC ATTGCCCCGT ACTCCATAAC TTGGGAAGAA GTTCCAGTAG ATAAAGATGG	9540
AAACCAAGTT GTTCGTAGTC ATTCTTGGGA AGGAAGCGGT CGCAACCAGA CTGCAGGTTT	9600
TGTCCTCAAC CTCCCAATCA AAGAAAATAT GAGAAATCTG CGAGTTAAGA TTGAGAAAAA	9660
GACGGGCCTA CTATGGAATA GATGGCAAAC AATCTATGAA AACAGACCAA TTTTAGCTCA	9720
ACCCACCGT AAAATTACCC ATTGGGGTAC GACATTGAAT TCCAAGGTGA GTGACGATGA	9780
TGTCTTGTA TCTGATGGTA GAATGACAGT TAGTTTGTCT AGTTTATAAG AAAGTACTAC	9840
CTGAGCTTGA ATAGGACTCA GGTAGCTCTC TATGAAAGAA CAAAATTAAT ACTCAATGAA	9900
AATCAAAGAG CAACTAAGA AACTAGCCGC AGGTTGCTCA AAGCACTGCT TTGAGGTTGT	9960

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AGATAAGACT GACGAAGTCA GTCACATATA TAATCCAAGG CGACGTTGAC GTGGTTTGAA	10020
GAGATTTTCG AAGAGTATAA ACAGAAAGGT AGAGCGCGTG TTCTAATTTG AACACGAGTA	10080
GAAAACTTT CTAAAAACAA AAACGAAAGG ATGGGTAAAC TGTATTCGCT GAACTGAATA	10140
CGGGCGACTC TCCTCTAAAT CAAAATTAAG AAAGGAATTG ACCCCACCCT AAAAGTAGTG	10200
GGAAAAAGAT AGTTGATCTA GCGAGCATCG CTCACTGCGC CCAACTCCTA TTTTCCCTTC	10260
GCTTTTGTAT GGGTTTGGA TCTTTCTCAA TATAAAATAT AAAATAAAGA AAGGTAGAGC	10320
GTGTGTTTTG ATTTGAACAC GAGCGGAAAA CTCGGAAAAT AGATAATCTG ACTGAAAAAT	10380
CAGGATTTCT CGTCAGGTTT CTAATTTTCA GTCGTTTTCT TCTCGCTCTT TGTATCATAA	10440
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GGGGATCCTC TTCGTGCTAA GTTTATTGCG GAGAATTTC TTTGATGATGC TGTGTTTTT	10560
AACGAAGTGC GTAACATGTT TGGTTACACT GGTACTTACA AGGGTCACTG TGTATCTGTC	10620
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TACTCAAATT ACTTTGAAAA GAATATCGAG CTTGGTAAAT GGGGAGTCAA GGCTGTGGAA	10980
ATGGAAGCAG CAGCTCTTTA CTATCTTGCT GCCCAATACC ATGTTGATGC GCTAGCTATC	11040
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CAAATTTCTG CTTTCTTTT TTGATATTCA GGGCGATAAA AATCCGTTTT TTGAAGTTTT	11280
CAAAGTTCCG AAAACCAAAG GCATTGCGCT TGATAAGTTT GATGAGATTA TTGGTCGCTT	11340
CCAGTTTGGC ATTAGAATAG TGTAGTTGAA GGGCGTTGAC GATTTTCTCT TTGTTCTTTA	11400
GAAAGGTTTT AAAGACAGTC TGAAAAAGAG GATGAACCTG CTTGAGATTG TCCTCAATGA	11460
GTCCGAAAAA TTTCTCAGGG TCTTTGTTCT GAAAGTGAAA AAGTAAGAGT TGATAGATCT	11520
GATAGTGGTG TTTCAAGTCT TCTGAATAGC TTAATCTT GTCAAGAATT TCTTTATTTG	11580
TTAAGTGCAT GCGAAAAGTA GGGCGATAAA AACGTTTATC GCTsArTTTA CGACTATCCT	11640
GTTGGATGAG TTTCCAGTAA CGCTTGATAG CTTGTATTTC ATGAGATTTT CGTTCAAAC	11700
GATTCATAAT TTGAACACGA AAACGACTCA TGGCACGGCT GAGATGTTGG ATAATATGGA	11760

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AACGATCTAG AACGATTTTA GCACACGGAA AAAGCTGTTT AGCCAAGTCA TAGTAAGGAC	11820
TAAACATATC CATCGTAATG ATTTTCACTT GACAACGAAC GGCTCTATCG TAGCGAAGAA	11880
AGTGATTTTCG GATGACAGCT TGTGTTCTGC CTTCAAGAAC AGTGATAATA TTAAGATTAT	11940
CAAAATCTTG CGCAATGAAA CTCATCTTTC CCTTAGTGAA GGCATACTCA TCCCAAGACA	12000
TAATCTTTGG AAGCCGAGAA AAATCATGCT CAAAGTGAAA GTCATTGAGC TTGCGAATGA	12060
CAGTTGAAGT TGAAATGGCC AGCTGATGGG CAATATCAGT CATAGAAATT TTTTCAATTA	12120
ACTTTTGAGC AATTTTTTGG TTGATGATAC GAGGGATTTG GTGATTTTTC TTTACCAGGG	12180
GAGTCTCAGC AACCATCATT TTTGAASAGT GATAGCACTT GAAACGGCGT TTTCTAAGGA	12240
GAATTCTAGA AGGCATACCA GTTGTTCGA GGTAAGGGAT CTTAGACGGT TTTTGAAAGT	12300
CATTTTTCTT CATTAGACTT CCACAATCAG GGCAAGATGG AGCCTCATAA TCCAGCTTAG	12360
CGATAATTTT TTTGTGGTA TCCATATTGA TGATATCTAG AATCTTGATG TTTGGGTCTT	12420
TAATATCGAG CAGTTTTGTG ATAAAATGTA ATTGTTCCAT ATGATTCTTT CTAATGAGTT	12480
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TTCTTGGTAG TAGCACCAAG AATAATTACC ATCGATGACC CAAGCTTTAT GCTTGGTGAG	12960
AAAGTTTTTT ATCTCGGTTA ACATCCATTC GCAGTCACTG TCTTGCCAAC CAGGTTGAAA	13020
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AGTTGACTTA CCAGAACCAG AATATCCGAT AATTGCGATT TTCATTTTCT ACCTTTTCCT	13140
ATTTGGAGAC AAAAAACAG CCTCTATGGA CTGTTTCTTA TTTAACAAGT TTAGCTGAAA	13200
GACGAGCTTT ATCGCGGCTT GCTTTGTTTT TGTGAATCAA ACCTTTAGTT TCTGCTTTAT	13260
CGATAGCTGA GCTAGCAGCA CGGAAAAGTT CTTGAGATGG GTTTGCTTCG AAAGCTTTTA	13320
TAGCAGTACG CATAGCTGAT TTTTGAGCTG AGTTCTTTTC GATTGCTCTA ACGTTCAATT	13380
CAGCGCGTTT GATAGCTGAT TTAATGTTTG CCAATGGTCT TACCTCCATA TTTACTAACT	13440

(2) INFORMATION FOR SEQ ID NO: 129:

890

- (i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 8512 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 129:

CCTTTTTTCA AAAACTAGAT ACTAGTCTAT CAAAAGTAGG AAAGGGTTTC AAGAAAATTG	60
ATTGGAAATT TTTTGAAAAT CATAGAACTA TTAGCTAATC CCTAGTATTG AAAAGACTGG	120
ATAGCTTCTT TCAGGTCATC TTGTAACTA TTTCTCTGGT CAAGTTGGAC ATAGACTTCC	180
ACCAGACAGG ATCTAAAGTT GGAAAATTG TAAAAATCCT CCCTTTCTTC TATCGGAAAA	240
TCAACAGTTT TTATCCAAGA AGCTACTTGT TCTTGCTCCA ACTTCCCTTG TAAAATAGGT	300
TCATAGATCA CTCTTGCTAA ACGCCAATCC TCATCATCTG TAAAGCGAAT CGACATTCTT	360
TTAAATAGTT GGCCAAGTAT ATCAAATACT TCATGAACTC TGTTTTTAGG AAAGTCTGGA	420
TGACAAACCA CCTCTGTCAG TAAATCGGCT CCATGTGCAA AAGCGTGAAC CCAACCATAC	480
TGACTTGAGA AACCCTTGT ATCCTTTTCT TTTGAAAGAT AGTGCAAGCC TTGATTTAAA	540
AGGACATTAC GAATTTCTGG AGAAGGATTT CCCAAATGAT CAAACAACCA CTGGATTTCT	600
TCCTGGTTAT AATTTGGTTT TTCTTCTGCT ATTTTCTTA GTAAATCTTG ATACATGGTC	660
AATACCTCTA CATTTCTAGC AACTGTTCAA AAAGGCAGTC TTAAATGACT CAATATTGAA	720
TTCTCAATTA AATACAATCT GATATAAAAT GACGTAAATA ACTATCAATA CCAGTTCTAC	780
AGTAAGTTCA AATTTAACAT CACGACCTTC AACGACATTT TTGAAAATAG CTACAATAA	840
GACAAATAGA ATGACGCTTA ACAAGCCCAT AAACATCATT CTAAAAAATT TTTCTATTCC	900
CCTACTCTCC CAACTCAGCA CTATAGGAGA TAATCTGGTC AACTGTGTCA GACAAGAATT	960
GGATGGTATC ACGGAGTGGT TTGTCTGTTG AAATATCAGC ACCGATAATC ATGGCTGACT	1020
CAAGTGGTGT CTTGCTACCA CCTGATTTGA GGAGATTGAG CCAGTCTTCA GCTCCAGTTT	1080
CAGAATGTTT TAGATGAAGG TAACCAGCAG TCGAGATAAC TAGTCCTGCT GAGTAAGTGT	1140
AACTATACAA GCCCATATAG TAGTGAGCTT GGCGCATCCA AGTCAGAGTT GCATCATCGT	1200
CAATTTCAAT AGCATCTCCC CAGAAATCCG TCAAAACTTC CTTCTAATG CTGTTGAGCT	1260
TGCTTGCTCC AAAGGTCTCC CCTTCTTCAA TCAATGTATA CACCTTACGC TGGAAGGCGG	1320
CTTCCAAGAG GTGGGTGATA AAGTTATGGA AGTAGGTGTC TGTCAAGCGA TGAGCCAGAG	1380
CGAAGCGTTT TTGACGTGGG TCATTAGACT GGTCTCTCAA GTAATCACTG AGTAGCAATT	1440
CATTGAAGGT TGACGGTGCT TCAACATAGT AGGTCGACAT ATGGGCATTG AAGTAACTTT	1500

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GATGATTGTC TGAAAAGATG AATTGACCAG AATGCCCGAT TTCATGAATC AAGGTATAGA	1560
CATCGCTCAA ACGGCCTGTC CAGCTCATGA GTACATAAGG GTGTACGCGA TATGGGTCCG	1620
CCGCATAACC ACCGGAATCC TTGCCACTGT TAGCAGCAA GTCCACCCAG CGCTCTTCTT	1680
GGTAACGAGC AACTTCCTGA CAATATTCTT GCCCAAAGG TTCTACCGAC TTCATGACCA	1740
AATCATAGGC ATCGTCAATA GTCAC TTCAG GATTTCAGGGC GCTGTCCAAG TCCAATTTCC	1800
AGTCTGCAAA GGTCATCTTT TCAAGACCAT TTACCTTGGC AACATGCTTG AGGTATCTCT	1860
GAGCGACTGG TGCAAAGTCC TTCATGATGA GGTCAATCTG GCGGTCAAAC ATGACACGGT	1920
CCACTTCTTG TTCAGCTAGA AGATAGTCAA AGACAGAGTC GTATCCCTTC ATATCAGCCA	1980
AGAGTTTTTC AGACTTGACC TGAGCCAGAT AGGCTGCTGC AGCCGTATTT TGGTGCTTAC	2040
GAAGTCCCTC TGAGAAGGAA CGGAAGGATT TCTCACGAAC CTCAGCATCC TCATGGTTTT	2100
GGTAGAAATT CTCATAGGTC ACAAAGCTGT TTTTGTAGGT CTTGCCATGG GCTTCAAAGT	2160
CAGCCATTTT AAAATCCCCA GCTCGCATCT TAGTATAAAT GTCCTGCGGA CTGTAGAAAA	2220
CTTCACCGAG ATTTGTCAAG GCCTTCTCCA CATCTGCCCC TAAGTAGTGG GCTTTTTTGA	2280
TTTTCAGCCTG ACGAATGGCA GCTGTTAAAT GTGGCAATTT ACCCAAACGG TCCAAGACTT	2340
CCTCATCTGC TGCCACCAAG GCATCGTCAA AGAAGGTCAA GGCTACGCTG GCATCTGTTT	2400
CAAATTCAT CCCAGCTTGG GCAATATTGG CAAATTCGTC ATTGCTATAG TCCGTCGTCT	2460
GAGGCATAAA ACCATAGTTG CCAATATGGC TCATCTGAAT GTAGATCTGT TCCAATTCGG	2520
CAAAGGCCTT CTCGAAATCC TCAAAAGTGT GAAGATTGCC CTTGTAATCA CGGCTAAACT	2580
GGTTGATGTC TTCGCGAGCT TTCTCGATTG CACGCAAGAA ATCCTCACGG TCTTGGTATA	2640
GGGCTGTAA GTCCAGAGT TCCTTCTCTG GAAATTCTGA ACGGTGTTTT GTTCCATTT	2700
TCTTCCTCTT ATTTCTCTAA TTCTACTAAA AACTAAGGG CTGATAAAGC GTAAAGCGGT	2760
GCTGTTTCTG CTCGAAAAT ACGAGGACCT AGGCCTGCCA AAACGGCTCC TTTAGCTTCA	2820
AAACTTTCGA TTTCTGCAGG TGAGAGACCG CCTTCTGGAC CAAAGATAAA GAGCAGTTTG	2880
GCTCCTGTTT CAAGACCAGT GACTGCTTGC AGAAGCGCAG CGGCTTCTCC TTCTTTAGCT	2940
GATTCTTCAT AGGCTACTAT GATAGAGTCA AACTGGTCCA GCTGAGCTAG AAAATCTGCT	3000
TTTTTCTCGA AAAGTTTAAT ACTTGGTACA ATATTACGCT TGCTTTGCTC GGCTGCTCCA	3060
AGGGCAATTT TTTCTAGTTT TTCAACTTTT TTACCCAATT TCTTGCCATC CCACTTGCCA	3120
ACTGACCAGT CTGCAGGAAA GCGCCAGATT TGGCTAGCCC CCAGTTCGGT TACTTTTTGA	3180
GCGATGAACT CCAGCTTGTC TCCCTTGGGA AATCCAGATG CGATGGTCAC TTGACTGGT	3240

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AGTTCCACAT TGTCAATTAA TTCTTGGACC AACTCAAAC TACGATTTTC CATATCCAGC	3300
ACGCGCGCCA AGCGCTTGAT GCCATCATCA AAGACTAAGG TAACCTCATC CTCTTCTTTC	3360
AAGCGCATAA CCTGAAACAT ATGCTTACTG GTTTCCTTGT CCTCGATAGT GACAGGAGAG	3420
ATAGCACTGC CTTTTACAAA ATACTGCTGC ATGCTAGCCT CCAATCACAC CAGAGATATC	3480
CTTGGTTTTT TTAAGACAC AGGTATTCCA TTCCCCTTGA ACCATGTGAG TTTCGAGGAA	3540
AAATCCAGCT GACTCAGCCG ACTGGCGCAC CATGTCCAAC TTGTCCTTGA TAATGCCACT	3600
CATGATCAGG TAGCCTTCAT CCTTTACCAA GCGATAAGCA TCGTCTATTA GATGAATGAG	3660
GATATCCGCC AAGATATTAG CCACAATCAC ATCTGCCTCA ATTTCCACAC CCTTAAGCAA	3720
ATCTCCAGCC GCTACATGGA TATTTTCCAT GCCAGGGTTG AGCTCAATAT TTCTCTGAGC	3780
CACACGAACC GCCACATCAT CCAGGTCATA GCGGAAAATT TCTTTAGCCC CCAGAAGCGA	3840
GCTGGCAATA GAGAGAACCC CTGAACCAGT CCCCACATCT AGCACCGTTT CGCCACCACG	3900
AAGAACCTGT TCCAAGGCAA AAAGGCTCAT CTTGGTAGTT GGGTGGGTTT CAGTACCAAA	3960
AGCCATGCCA GGATCCAGCT TGATAATCAT TTCCCCGCA GTCGCCTCAT AGTCTGTCCA	4020
AGAGGGAACG ATGGTCAAAT CATGAGTGAT ACGAGCAGGT TCATAGTATT TCTTCCAGTT	4080
GTCTGCCAG TCTTCTCAG CCAAGGCAGT CGTACCTATT TTAACTCTC CCAAATCCAT	4140
AAAATCTGTC AATTCTGCTA GACGAGCCTG CAAATCCGCC TCAACCACTG TCACATCCAC	4200
CGTGTCAAGG TAGTAGGCTG TCACTACGAT TTCTTCTTGC TGCTCCACCT CTGGGAAAAT	4260
CTCTCCAAAG CGGTCCACAT TTCCACATA GTCCATACTG TCTTCGATTG CGACTCCTTG	4320
CGCTCCCAGC TCAATCAAGA GATTGGAAAC CAACTCCTCT CCCTCACGCT TCACTGTAAC	4380
TTTAACTCT TGCCATGTTT CCATTATTAA TACCAAGCCC GTAAACACA AAACCAAAAT	4440
AGGAAATTCT CTGAAGACGC TTGTGTCTAA GAGAAGTTTA TCTTTTGGC ACAGTGTTTA	4500
GGGCGGGTTC AGTTTAGAAA TGTAAGTAA CCATCCTTTC TAATCACTTA CTTTTAAATA	4560
ATCTTTAAT CTCTCTTGCA ACTGAGGCAC AACTTGACTG GAACTAAGAA ATTCCTCAAC	4620
ATTCATCAGC TGATAGCCCT GTCCTTCATC TCCGAAGATG ATATTGTCAA ATTGTTCTTG	4680
TCTTAGCTGA CCAACCATAA AGACCGATTT CTTGCCTTTA AAAATTACGC TAGGATAAAT	4740
CTTGCTCCAA AGCAGACAGT CTTATCTAA ATGAATTCCC AGTTCTCAT AAATTTCACG	4800
CCGAGCGCAT TCAAAAGGGC TTTCGTCCCC TTCACGGCCA CCACCTGGCA GTTCCCACAT	4860
ATTGGCCCAG GGAATACTTG CCTTATCATC GCGTAAGATA GTCAAAAGCT TATCCCCACA	4920
AAACAAAGCA ATCTTGCAAC CTGTGAAATC AGAAATTTCT AGTTCCATCT TCAGTTCCTT	4980
CTAACATTTT CTTTTCCAGC TCGGCTAACC AGTTTTTATA ATATCTTTTC TCATCCCTCA	5040

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ACATTCGACT ACTATCCATT TTCTGTCTAG CAATCTTGAG AGCCTTACGA GTTCGATCTA	5100
CATCTTTCTT CACCTTTAAT TGATACCAGG CTTGTATCAC TTGAAGATTG GACAGTTTGA	5160
GAGACAGAAA CGATTTGACC TGTCGAATAC TAGCATATTG CTCCGCTTGC TCAAAATCTC	5220
CTTCCAACAA GCGATATGA AGCAGGGATA GTTGGGCAAC TGTCTGCATC ATCGGAGTAG	5280
TTGTCCTCTC AAGTAATGCT TGAAACTGCT GTTTAGCTAC TTCTTCCTTC CCTTCCAAAA	5340
TGGAACTTC ACCTTGATA CCTAATACAC CATCCGCAAA ACTCCCTCGT GCATCCTCAG	5400
GAACTGCTTG AACAAAGTCT TTCAAATCAT ATTCTTGAGG AGCTAGCAAG GTCTGGGCAG	5460
AATGTCTCAA TACCAGGTAG GCGTATTTGG TATTTTCAGG GTGTTGTAGT AATTCCCAAA	5520
TTTTTGCTCC ATCGGTGATG TCGACTGGCA AAATGTTATT TAGGAAGAAA GATAAATTAA	5580
GAAAAATCCA AGTCCCTGCA AAATACCAGC TTCTGTCAA AAATCCAAAC AATATCGCCA	5640
ATAATATCAA GCCGAGATGA ACCATCAAGC CTCCTGAAAG CATCAGGATG ATTCTTTGAT	5700
CGCTTTCATC CTCTTTTAAA CCAATGTATT GAGCACCAAC ATTTTTCAGA ATGGCTGTTT	5760
TACTAAGATG AAACCTGCCT GACTTTTGG TCAAAATAAA ATGTCCTAAT CCAAAGCCA	5820
CCAGCCGATA GCCTGTCAAG TAGCCACAAA AAGCATGACC CAGCTCATGA AGAATAAAGA	5880
TTAAATACAT GCTTAGAAGA GCGAAGGCAT AACCAAAAGT AAAGGCTAAA ACTGCCGAAT	5940
ACCCCAACTC TGCAAATGCG ATTGTTCCAC AAGCAAAAGC TAGCATAATA AAGACAACAG	6000
CTAGCACATA AACCAAATAA GTCCCAATTT TCTTCATAAC ACCTCCAACC AACTCCTAGT	6060
ATCTTGATA AGGATAAAAT TCTCCCTTTT CCAAGCCAAT TTTTCCTTCT TCAAAGACTT	6120
CTTGGTTCCA TTCCATGACA AATTCCTCTG CTTCTGGGTC TTCCAAAAG TCCATGAGGA	6180
CATCTAGCCC AACCTCAGCA GTATCTTTAA GGAAAAGCGC AAAATAAGCT AAAAATTCAC	6240
GGGAAAATCC TTTTITAGGC AGGTAAGGAA TAACAGTCAA ATAGTCTTCC TCATTGACTG	6300
TTGACTTGGC AGGATTGTAG AAAAGGACCG CTTCTCATAA AAGAATGTCA TCTGATGAAA	6360
CCTCTCCGTC TTCATCCACC ATCTCCACAC CGCAGCATTT TCGCTTCCA ATAGAAAAC	6420
CACTTCTACC GCATGGTTGC GTTTGTCCCA GCTAATCTCA AAGTCAAAGG GAAAGTTCTT	6480
GTCCAACTCT TCCTCTAAAA TATCTAAAAA TCCGTATGTT GCCATTTTGT CCTCTTTCTA	6540
TGCGACTCTT TAATCGCCCC GATTGCTCGG AAATATGCTA AAATAGATAC TACCATCTTA	6600
CCACAAAATT ATTTTATGTC CTAATTATAC CATATTACCT CATTTAAACC CTTGGTATCA	6660
GTGATTTTCT TAAAAGTCTG ATTTCTTCAT TTCTCATAAA AATCAATATA AAAAGCCCTC	6720
GAAAGGGCTA ATAAATCTAT AAAATCAATA GGCGAGTAAC TAGCACAAGT GGACGTGCTT	6780

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TTTTATTGAC TATTACCACG ATACCACGCT TAATCTTAGG CTTGAACTTT CTTATCTGCA	6840
ATAGCGTCTG TCAAAGTCTG AGAAAAGTTA AGCCCCATTT CTCGTCCCAA CTTATCTGCC	6900
CATTTTGGTA TGGTCAAAGT CTTTTTAATG GGTTCTTGAC TTCCTAGGTA TTCTGATACA	6960
TCAACAGATA CCATAGAAAT AAAAGATTTA TCAAGGTCAT AGGTTGACAC GAAATCTTCA	7020
TCATCTTTAA AAGGATCATT ATCAATTAAA GACAAGCTAT TGATATCTGA TGGCTGAGGT	7080
AACTCTCCAT CACTCTCTAT CAAATCTGCA ACAGTTATCC CTAGCCACTC CGACCCCAT	7140
GCCAAAGCCT CAGAAATCCC CTCTCCTTGT GTAGCTGAGT ATTCAAAATC TGGGAAATGG	7200
ACAAAATAAG TCGCTTCTGT TCCGTCTGTG TCGTCATAAT AAAATAAAGC TGGATACGTA	7260
ACTAACATTT CACTACCTCC ATATCAAAAA GCAGGGACTG AATTTTACAA CCCAGCTTGC	7320
TTTCTTATCC CTCTTTCAGT GTACTTATTC AGCTCACCAT GAAGGATTGT GATAGGTCTT	7380
TCCCCCTGCT TTTCCATTTT AATATGGGAG CCTTTACCGC CTCTAGTCTT TATCCAACCA	7440
TGGGCCGTAA GGAGTTTAAC CATCTCTTTT TGTGTCATAG GCATAGCGCT TTTACCTCCT	7500
GACAACACCA TTATAACACG TGTACACGT ATTGTAAAGG AGTGATACTT ATTATTCTAT	7560
TATACATAAA AGCCCCTAGA TGTGGTTCTA AGGGAAGCCA ATTTATTTCAT ACCTATTTTT	7620
CTAATGAGTA GTAAAACTG CTTCTTTATC GAGCAATTCA TCATCTGTAT AGTCAATTGT	7680
AAAAGTATCT CGATCTAAGA CAGATTGAGG CGGAGTTGAA TGAATCATAG GAACACTGCG	7740
TACTCTATAT TTTTATCTC CAATTTTTAC AAAGTATGAC TCTTCGAAAA TCAAATTCAA	7800
ACCACGTCAA CGTCGCCTTA CCGTACTCAA GTACAGCCTG CGGCTAGTTT CCTAGTTTGC	7860
TCTTTGATTT TCATTGAGTA TGATTAACTC TCAAGTCTTC GAAATCAGGA TTTTCAACAG	7920
TTATTACAAG GAGGCGATTT ACTACTTCAA AAACATCAAT TATTCTATTT TTCATATTTT	7980
TTCAACCCAT TATTAGAATG AACTTCTTGG TAAGCAAAAT CAAGTTTAGA TTAAATGTTT	8040
TCGTACAAAT CTAAAATCTC TTTTGGAGTA TCTTCCCGGA AGAAAAGTTT TCTTTTCCCT	8100
GAAATAACTT GATCACTAAG AATCCAATGA CGAATTTGTT TTGTAAAAAT CAAAATTTCC	8160
TGACTTGGTA GTTCCATCAT TTCCATTGCT TATCACCTCT CTTTTCATTA TAGTTCATAC	8220
AATGACATTC AGCAATATTA TTTCTCAAGT CAGCACTTCC ACTTCTTTAG GCTCAACTAT	8280
CCTATTTTGA GCTTTAAGGA AAATCAAATC TCTCATGCTG ATACCTCTCC TCATTAAATT	8340
AAATAGTAAA AAAGATTCTA TCTCACTCCC TGATTATTAC AAAACCATTG AAATATCACA	8400
ACTAATAGGC TAGAATGGAC ATAGTAAGAT ATAGTAGATG AGTCATTCTA CTCAAATCCA	8460
CGTTAGAAAAG GACTGCTATG CCAGACAATC TCGCCGTTCT CATGCGCCCG GG	8512

(2) INFORMATION FOR SEQ ID NO: 130:

895

- (i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 2869 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 130:

CTCGTTTCAA GGTGAGTCT CTTGCAAATC TTGTTGCGGT TCTTCCTTTT GCCAAGGCAT	60
CTCTCCCATG GTTGGTGCCA GCCATTGTTG GAATCTTGCT CTCATTGGTT CTACCAAACA	120
AGCAAGAAAG CGATGTTTTT GAAATGGAAT AATCACTTAA ATCACTTTTG TAGCCAAGTC	180
TACAGGAGTG ATTKTCTTTT TTTATCCGAT GATAAATGTG TTATAATAGG TAGCGAAAGA	240
GGTGAAGAAA TGAATCAAAC AGTAGAATAT ATCAAAGAAC TGACAGCCAT TCGGTCGCCA	300
ACAGGCTTTA CTCGTGAGAT TGCGGACTAT TTAGTCAAGA CTCTAGAAGG TTTTGGTTAC	360
CAGCCGGTTC GCACATCCAA GGGCGGTGTC AATGTAACTA TTAAAGGTCA AAATGATGAG	420
CAACATCGCT ATGTGACTGC CCATGTAGAT ACGCTTGGTG CTATTGTCCG TGCTGTCAAA	480
CCAGACGGCC GTCTCAAAAT GGACCGTATC GGTGGCTTTC CTTGGAACAT GATTGAAGGA	540
GAAACTGTA CCATTCATGT GGCTAGCACA GGTGAAAAAG TATCAGGAAC CATCCTCATC	600
CACCAAACTT CTTGCCATGT CTATAAGGAT GCAGGAACTG CAGAACGCAC GCAAGACAAT	660
ATGGAAGTGC GTTTGGACGC CAAAGTAACT AGTGAAAAAG AAACTCGTGC TCTTGGCATT	720
GAGGTCGGTG ATTTTATCAG TTTTGACCCA CGAACTGTGC TGACAGAGAC AGGTTTTATC	780
AAGTCTCGCC ATTTGGATGA CAAGGTCAGT GCGGCGATTT TGCTCAATCT CCTTCGCATT	840
TATAAGGAAG AGAAGATTGA ATTGCCCGTA ACAACTCATT TTGCTTTTTC AGTCTTTGAA	900
GAAGTGGGAC ACGGTGCAAA CTCTAACATT CTGCTCAGG TAGTAGAATA TCTGGCTGTG	960
GATATGGGAG CCATGGGAGA TGACCAGCAA ACAGACGAAT ATACAGTGTC TATCTGTGTC	1020
AAGGATGCTT CTGGACCTTA TCACTATGAC TTCCGTCAAC ATTTGGTGGC TTTGGCGAAA	1080
GAGCAAGATA TTCCATTTAA GCTGGATATC TATCCATTTT ATGGTTTCGA CGCTTCAGCG	1140
GCTATGTCTG CAGGGGCAGA AGTCAAACAC GCCCTTCTCG GTGCTGGTAT AGAGTCTAGC	1200
CATTCCTATG AGCGTACCCA TATTGACTCG GTGATCGCAA CAGAACGAAT GGTGATGCT	1260
TATCTTAAGA GCACGTTGGT GGACTAATAT GTGCCTTATT TGTCAGAGAA TTGACCTCAT	1320
CAAGAAGGAA GAAAATCCTT ACTTTGTCAA AGAGTTGGAA ACAGGCTATC TTGTGGTTGG	1380
AGACCACCAG TATTTTGAAG GCTATAGTCT CTTTCTAGCC AAGGAGCATG TCAGCGAATT	1440

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GCACCATTTG	AAAAAGGAGA	CAAGACTCCG	TTTTCTAGAA	GAAATGAGTT	TAGTCCAAGA	1500
GGCAGTTGCC	AAGGCCTTTG	CTGCTGAGAA	AATGAATATC	GAACTGCTAG	GAAATGGCGA	1560
TGCTCATCTT	CATTGGCATC	TGTTTCCACG	ACGGACAGGT	GATATGAATG	GTCATGGTCT	1620
CAAGGGTCGT	GGACCAGTCT	GGTGGGTTCC	CTTTGAAGAA	ATGACAGCAG	AAACCTGCCA	1680
AGCAAAACCG	GATGAGATTA	AAAGATTAGT	CAAACGTTTA	TCGTCAGAAG	TAGATAAACT	1740
ATTAGAAATA	AAGGAGTAGA	AATGAAGAAA	AGATACCTAG	TCTTGACAGC	TTTGCTAGCC	1800
TTGAGTCTAG	CAGCTTGTTT	ACAAGAAAAA	ACAAAAAATG	AAGATGGAGA	AACTAAGACA	1860
GAACAGACAG	CCAAAGCTGA	TGGAACAGTC	GGTAGTAAGT	CTCAAGGAGC	TGCCCAGAAG	1920
AAAGCAGAAG	TGGTCAATAA	AGGTGATTAC	TACAGCATTC	AAGGGAAATA	CGATGAAATC	1980
ATCGTAGCCA	ACAAACACTA	TCCATTGTCT	AAAGACTATA	ATCCAGGGGA	AAATCCAACA	2040
GCCAAGGCAG	AGTTGGTCAA	ACTCATCAAA	GCGATGCAAG	AGGCAGGTTT	CCCTATTAGT	2100
GATCATTACA	GTGGTTTTAG	AAGTTATGAA	ACTCAGACCA	AGCTCTATCA	AGATTATGTC	2160
AACCAAGATG	GAAAGGCAGC	AGCTGACCGT	TACTCTGCCC	GTCCTGGCTA	TAGCGAACAC	2220
CAGACAGGCT	TGGCCTTTGA	TGTGATTGGG	ACTGATGGTG	ATTTGGTGAC	AGAAGAAAAA	2280
GCAGCCCAAT	GGCTCTTGGG	TCATGCAGCT	GATTATGGCT	TTGTTGTCCG	TTATCTCAAA	2340
GGCAAGGAAA	AGGAAACAGG	CTATATGGCT	GAAGAATGGC	ACCTGCGTTA	TGTAGGAAAA	2400
GAAGCTAAAG	AAATTGCTGC	AAGTGGTCTC	AGTTTGAAG	AATACTATGG	CTTTGAAGGC	2460
GGAGACTACG	TCGATTAATA	CTCTTCGAAA	ATCTCTTCAA	ACCACGTCAG	CGTCGCCTTA	2520
CCTACTGACT	GCGTCGGTTC	TATTCACAAC	CTCAAAACAG	TGTTTTGAGT	CGATTTCGTCA	2580
GTTTTATCTG	CAACCTCAAA	GCTGTACTTT	GAGCAstGCG	GCTAGCTTCC	TAGTTTGCTC	2640
TTTGATTTTC	ATTGAGTACA	AAAAGTAAAC	TTTTCTCTTG	CAATTCCAGA	TAAATAGTGT	2700
ATAATGGATG	GGTATGTGAA	AAACATACTT	GTGGGAGGTA	AAAATCTCTA	ATTACCGCCA	2760
AAACCACAAA	GGAGGATTTA	AAAATGGCTA	AAAAAGTCGA	AAACTTGTA	AAATTGCAAA	2820
TCCCTGCTGG	TAAAGCTACA	CCAGCTCCAC	CGGTTGGACC	TGCTCTTGG		2869

(2) INFORMATION FOR SEQ ID NO: 131:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 6186 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 131:

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CTGAATCCCT TATAGGAGTC CAGTAACTTT TTAGCCTCTA CTTTGCCTTC ATAGGCAGCT	60
TCAACATCAT TAAAAAAGA AIGCACTGAA GCAAGTTCTT CAGTGCTCCA CGACAAATCT	120
AGTGGGTAAC TATACTGTTT GTTCATTAAC TAATACCAGC TCTCATTCTT GCTTCTTTTA	180
GTTCTTGCTT ACGATAACTA CGAGGGAGAA AAGCACGAAT CTCATCTTCA TTAAAACCGA	240
TTTGCATACG CTTGGCATCA ATAATAATTG GACGACGAA AAGACTAGGA TACTGCTCAA	300
TCAAATGAAG CAATTCCGAT ACCGAAATAC TCTCTACATC AATATTCAAT TTTTGAAAAA	360
TTTTTGAACG AGTTGAAATG ATGTCATCAG TACCATTTTC GGTCAAGGAA AGGATGTGTT	420
GCAATTCCTT TCTTGTTAAA GGACTGGTCA TAATATTGTG TTCCACAAAG GGAACCTATG	480
TTTTTCTAAC CAGGCCTTAG CCTTACGACA TGATGTACAG CTCGGTGATA GAAATAGTGT	540
AATCATGCTT TTCTCTTCTT ATCTATACTT TGCTACTTCT ATTATACAAA AAAATAAAGC	600
GCTTGACTAG GGATTTTTAG AAAAAAGCC TATTTTTTCA AGAAAAATAG GCTTTTTGCG	660
AACGATTGAC ACAATTGGAT TTGGTTAATT CACTCTTAAC GATGGTTTTA AACGATATAT	720
ATTTTTATAT ATGTAAATTA AAAACATCTT TCCTTTCAC TCCACGACT TTTCAGATAC	780
AGATAGCCAA AGAAGTTTTC ATAGAGGGCA AAAAGAGGA GGAAGGCATG AAGAAAGAAG	840
GTCTCTGGCA AAATCATAAT AACAGGATCC TTGGCTGGAT CAAAAAGCCA GGTATCATCT	900
CCCACAAAGA GAATTTGATG GAAAAGAGTA AAGAATTGGT CAAAACCAAT CAAACTCCC	960
CCAAGTCCAA TCATCACAGG TAAGACTACT AGAGCCAGGA GACTTTTTTCG ATAAAGAGAC	1020
AAAAGTCCT TTTTACAAT CCTATTGACA AAGACATAGA AACTTGGCAG TGCTACTAGA	1080
GCTACTAGCT GAACCAAATG AAAGAGATTC TTGACCACTG CGAAATGGTG CAGACCAGCT	1140
GCTGACGAAC GAAAATCAGG CATCTGTAAG ACCTGACTAA AAGGATTGGT CAGATAATTC	1200
ATCAAGATAT GAAAATTGTA TTGAATGGTT TCTGGTTTTA GATAGACTCG ATTCGTTAAG	1260
TTTAGCCACT GAATCTCCAT AGGATAGAAA ATCCAAGCCA GATAAATGGT CAGAAGGATG	1320
GAGAGGGAGA GGAGAAAGAG CATAGAGCCC CAAAAGATCA ATTTAGTTTT CATCAAAATC	1380
CCACTCCGCA AGGCTAGAAA CCACATGTGT CGGTGCGATT GGCAGGCCAG CTACTTCTTC	1440
TGCCTTAGTA AAACCTGTCG TCACCAAGAG CGTTGGAATG CCATTGTCAA TCCCAGCCCC	1500
AATATCAGTC AAATAATTGT CCCCACCAT GATTAACTCT TCACGTTCCA AACCTAAGTG	1560
CTCAACCGCC TTGTCCATAA TGATGGCATT TGGTTTTCCG ATATAAACCG GCTTCACTCG	1620
TGTCGCTACT TCAAGCAGCG TAATCAGTGA GCCAGCACCT GGCAAAAGAC CGCGTTCCGT	1680
CGGGATGTTG AGGTCAGGAT TGGTTCCGAT AAAATGGGCA CCCTTTTGAA TAGCAAGACT	1740

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TGCTGTGGCA AATTTTTCAT AGTCGACTTG CCAATCCAGA CCAACTACCA CGTAGGCAGG	1800
TTTTTCCTTG TCTTCCACAT AACCAGCCGC CTTGATGGCT TCCTTGAGTC CTGCTTCTCC	1860
GACGACATAG ACGGTCTTTT CAAGCCCCAA ATCATTGATA TAGTCGATGG TTGCCAAAGT	1920
CGCTGTGTAG ACAGTCGATA GGGGCGTATC GATATTAAAA TTCTGAGCCA ACATCTCCTT	1980
AACACTCTCT GGAGTGCGGG TTGTATGTGT GGTACAAAAG AGATAGGGAA TGTCCCGCTT	2040
TTGCAATTCA TGAACAAAAG TCTCTCCAGC AGGGATTCCG TCTTTCCCTT TATAAATGGT	2100
TCCGTCTAAA TCAATTAAAT AGCCTTTATA TTTCATCTAT TTCTCCCTAA GCCTTTTTTA	2160
TTTCTTGCCA AGTAATGATT GCTTGGGCAT TGATAACCCC ATCACTTGTA ATTTGATGCT	2220
TGCTTTCCAG TCCAGTCCGT TCAACAGCCG ATGTAATCAC CCCACCTGGT CGAACTTCCT	2280
TGACATACTT GAGGTTGATT TTCTTGGGAA TATAGTGGGT CAAAAATCC GCTCCCATGA	2340
CCTCAAAAAT CCAGTCCAAG TATTTACTGT TATTGACATG ACCATTGATA TCCAAGTCGT	2400
AAAAACGAAC ATGGTAATCC TTGCTGATCG GTTCTTCCAA GGACTCATA TCCGGTCCAC	2460
GGATAAGTTT TTTATCAAAA TCAGACTGGT AAGGAGCCAC AATCTCAGGT TCAACAACAT	2520
GGACTTTTCG ACTGTCGCGG TCCATGAGAA CAAAGGTCGC CATCATGTGG ATGAGCTCCT	2580
GCTCCGCTTC ATTATAAATA GTAAAGCGAC GGTAGCAAAA AAGTCGATTG TAGCTCAAGG	2640
CTTCCGTTTC GATGGTAATT TCTTCCGCAA AACGAGGCAA ACGAACCACC TCAATATCAT	2700
ATTCTACGAT AATCCAGACC AGATTATATT CTTCCTTATCA CTAACCTCCA	2760
GTTCAATCGA CTGCATCCCT GAACTTGCA GTGACAGCAA AATCACATCT GGAAGTTTGA	2820
TATGACCGTT CATATCAGCC ATATCAAAAAG GAATTTTCAT TTTCATTTGA TAAGTTAAGC	2880
CCATGATCCT ACTCCAAAAT AAATCGTTCT GCTACAGTAT CTCCCAAAA GAGACCTCTC	2940
TTTGTGATGC GAACGTGGTC ACCCTCAATC TGCATGAGGC CTTGTTGAAC CAAATCTCTG	3000
ACAATTTCTC CATAAAGTCC AGCAAAAGAC TGTCCAAATT TTCTCTCAA TCGCGCCATG	3060
GAAACCCCGG ATTTCTTGGG GAGTCCCAAG AACATTTCTT CTTCATTTG CTCCTTTTGA	3120
CTCAGGTGAT CTTCTGTAAT ACAAGCATTG CCTTCCTCAA CCGCACTGAG ATAATGACGA	3180
ATGGGACCAT GATTTTTATA GCGTACTCCA TTGACATAAC CAGATGCCCC TGCACCAATA	3240
CCATAGTATT CAGCATGTGC CCAGTACATG AGATTATGAC GACTTTCAA ACCGGGTTTG	3300
GAGAAATTAG AAATCTCATA ATGCTCAAAA CCCGCTCGCT CCAGCTCTGC AATGATGTAC	3360
TCAAACATCT CCGCTTCTAG TTCCTCCTTA GGCAGAGGCA ATTTCCACG TCGCATCCGG	3420
TTCATAAAGA CCGTATGGTT TTCTAAAATC AACTATACA AACTCATGTG GGGAATATCC	3480
AATCCAATGG CTTTAGCCAC ATTTTCCTTT ACTTGCTCCA TGGTCTGACC AGGCAGAGCA	3540

TAAATCAAAT CAATGGAGAT ATTGTCAAAA CCAGCCAGTT TCAGGCGATC GATATTTTCA	3600
TAAATATCCT TCTCCAAATG ACTGCGCCCA ATCTTTTCA ACATCTTATC ATCAAAGGTC	3660
TGGACACCTA GCGAAACACG ATTGACAGCC GAATTTTCA AAACAGCTAT CTTATCCGCA	3720
TCCAAATCGC CTGGATTGGC TTCAATGGTC AACTCTTCCA AGACAGACAA ATCCAAGTTT	3780
TTAGTCAAGC CATTCAAGTAA CACCTCCAGT TGCGGAGCCG ACAGGGCTGT CGGTGTTC	3840
CCACCGATAT AAAGGGTTGA CAACTTTTCA ATATCATAAG AACGAACTC TTCCAGCAGA	3900
TGCTCTAAAT AGCTGTCGAC TGGCTGATTT TTGATGAAGA CCTTTGAAAA ATCACAATAA	3960
TAACAAATCT GGGTACAAAA TGGGATGTGC ACATAGGCTG ACGTTGGTTT TTTCTGCATA	4020
GTAATTATTA TACCACAAAG ACTAGATTCC AGATAAAAAT CACCATCCCC AGATACATAG	4080
TCCGTCCGGA GATGGTGATG GTTTATTCTT CTGTTATATC AATCACAATC TCTTCTGAGT	4140
CATCAAGAGC TTCGGCTTTT TCTTGCCATT GCTCCTTGAG ATTATTTAAT TGATTTTTTG	4200
ATGCTTCTGT CGCTTGAAAA GCATAGGATT TAGTTTGAGC AAGTATACTG TCCACAGTGA	4260
TTTCACCTGA CTCAACCTGT TCTTTTGTTC TCAGAACAAA ATCTGTAGCC TGCTCCTTAA	4320
CTTCTGTCAG TTTTTCACAG ACTTGCTCCT TGGCATACTC CGGATCTTCT CTCAAATCAT	4380
CTAGAAAATC TTGAGCCTGA CTGCAACTT GTTTGCCCTT ATCACTTGTT AAAACAAGG	4440
CAAGAGCTGC ACCTGAAACG GTTCCTAAAA GGATTGAGGA TAATTTACCC ATAAGGATTC	4500
TCCTTTTTTA TTTTGTGAAA AATTTACTTG CAAGACGAAG AGCTGACAGA CTTGCACCAG	4560
TCTTGAGTGT TTTTGAACCA GCTGATGAAG CTTTCTTGCT CAAGACACGC GCATGGTCAT	4620
TGAGGTCTGA AACAGATAGA GATAAATCTG CAACAGCACT GAAGAGTGGA TCAATCGTAG	4680
CCACCTTGAC ATTGATATCA TCTGCCAAGA CATTGACCTT AGCCAACAAC TCATTGGTGT	4740
GATGCAAGGT CACATCCACA TCTGAAGTCA AGGTTTTAAT CGTCTTTTCT GTTTCATCGA	4800
TGACACGACC AAGCTTTTGT ACAGTAATGA TCAGATAGAC CAAAAGACA ATCAAAGCTA	4860
GGGCAACAAG AATATATGCA ACTTCTAACA TTTAGTTTTC CTCCTCTGTA ATATAGTAAG	4920
GGGCCTTCTT TCGATTTTGA TAAATAACGA TCATTATACC GAGACCGATA AGGACAACTG	4980
ACAGCCATTG GGACACTCGA AAGCCGAAGA ACATGAGACT ATCTGTTTCG ATACCTTCGA	5040
TAACCATACG ACCGAAACCA TACCAAATCA AGTAAAGGC CGTGATATGA CCTCGTCTGA	5100
GACTCTTCCA TTTCCGTCTA AAAATCAGAA TCAAGGCAAA GCCAAGCAGA TTCCATAGAG	5160
ACTCATAAAG GAAAGTCGGT TGACGGTAGC TCCCCTCAAT ATACATCTGG TCACGGATAA	5220
AGCCAGGTAG ATAATCCAGA TTATCCACTG TTGCACCATA AGCTTCTTGG TTAAAGAAAT	5280

900

TACCCCAACG	CCCCAACTT	TGAGCAATCA	TAACGCTAGG	CGCCGCAATA	TCTAGAAAAT	5340
CCCAAGTATT	GATGAGTTTA	CGGTCAGCAA	AGATATAGAG	CACAAGAGCC	CCAGTTATCA	5400
AACCACCGTA	AATGGCCAAA	CCACCATTCC	AAATGGCAAA	AATCTCTCCT	AAATTCTGAC	5460
TATAGTAATC	AAATCGGAAA	ATAACATAGT	AGAGACGAGC	TCCTAAAATA	GCCAAGGGAA	5520
AGGCTACTAA	GATAAAATCT	AAAATATCGT	CTGGTATGAT	CTTCTTTCTA	GGTGCTTCTT	5580
TCATGGTCAA	ATAAACCGCA	AGAATCAAGC	CTGTCACAAT	ACATAAGGCA	TACCAACGAA	5640
TGGCTAGGGG	TCCTAGTTGA	ATAGCAATTG	GATCAAGCAT	TTTGCACCTC	ATTTGAGCG	5700
ATTAGACTTG	TCAGTCGTTT	GTCGAACAAA	CGGGTCGCAT	CAAAGCCCAT	TTCCTTGGCA	5760
CGATAATTCA	TGGCAGCTGC	CTCAATCACA	ACAGAGATAT	TACGACCTGT	TTTAACTGGA	5820
ATACGAATAC	GAGGAATGTA	CGCCAGAAAC	TTCAAGTTCC	TCTGCATTAT	TTCCAAGACG	5880
ATCAAAGGTC	TTATGCGTAT	CGTAATTTTC	CAAATAGACA	GCAAGCTGAA	CCTGTGAAGA	5940
ATCCTTGACA	GCACTCGCAC	CGTAGAGACT	CATAACATCG	ATAATACCAA	CCCCACGAAT	6000
TTCAATCAAG	TGTTTCAAAA	TTTCAGCTGG	TTACCCCCAG	AGAGTAATCT	CATCCTTGGC	6060
AAAGATATCG	ACACGGTCAT	CGGCTACCAA	ACGGTGACCA	CGTTTGACAA	GCTCAAGACC	6120
TGTCTCGCTC	TTACCAATTC	CACTATCTCC	CTGAATCAAG	ACGCCCATCC	CATAAATATC	6180
CATCAA						6186

(2) INFORMATION FOR SEQ ID NO: 132:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 9541 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: double
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 132:

GAAAATCACA	ACCCTTTTGT	CAAAATTTTT	GAGATTATTT	TCACAACTT	GATTTTTCAT	60
AGTATACTCA	ATAAAAATTA	AAAAAATCCA	CTACGTCAAG	GCGAGGCTAA	TGTGGTTTGA	120
AGAAATTTTC	GAAGAGCGTG	AATGAGTATC	ATCTATAGTA	AAATAAAAAA	ACTGAACAAT	180
TTGGTTGGGG	ACAGCCAAAC	CAATTTCTCA	CAATGTTTCA	GAAACAAGGG	TGTGCTATTC	240
CAATTTCAGC	CTACTATAAC	TGTCATAGAT	TGCTGAAACA	AAGTCTAGGT	AAAAGTCTTC	300
ATAATAAAAA	GACCTCCTAT	CAAGTGTTCA	AAAACTTTGA	TAGGAGGTCT	TGTTTTGTGA	360
AAATATTTAT	CAAATTTTCT	ATACAAGTGA	GCTGTTAGCC	AGGTTCTTTC	TATTCTTTCA	420
ATTTCAATGA	ATGGATTTTT	TACTAATACT	CATAACTGGG	AATTTGTCTG	TGTA AAAATA	480

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GCGAGATAGA TGGTATTTAT AAAACACTCA AGACAGCTAG ACTAATATCA TTTAAAACAT	540
TATCTTCTTT TGAGCGACTG TTGGTTACCA ACATAGCTAA ATTTCTTGCA TTTTCAAATT	600
GATAGGGTTC TGATTTAGCA TTCACAACCA CCAAGAGGTG TTCTTTGCCG TGAAC TTCAT	660
AGATAAGGTA GCCGCTATGT TCAATCGCAG AATGCACAAA GACATGATGG TAAATTTTCAT	720
CATAGCTAGA GTAAGAAAAG GCACCAGTTT TTGTCTTCAA TCGGATGACT TGACGGATAA	780
ACTCAATACT GTCTTGACGC TCATTAATCA AGTTCCAGTT CACTTGGTTC AACTGTGACG	840
GAGCATTATA GCTATTCATC GCACGCTCTC TATCATCATG GGTCAACTCA CCATTTTCAC	900
CAGTCGCAAC CAGTTTGGTA CGACCAAATT CTTGACCGAT TTCCATAAAG GCCATCCCCT	960
GCATGAGCAG ATTCATGGCT GTGGCAGTTT CGACCTTGCG CATGATTTGC TCTGAACTTT	1020
GGTCTGGATG AAGGGTTGCC AATAAATCGT GAAGATTGTA ATTGTCATGG GCTTCTACAT	1080
AGTTAAGCAC CTGATTTGGA TGTGTATAGC TTCCTAATTC ACGACTTCCT AGGATTGCTT	1140
TAGCTAGAAT TGGCTCTGTC GCAGCACCAC TGACAAAACC TGACTTGATA GCACCATAAA	1200
CTTCTCCCCC TTTGACAGCA TCGCGCTGAT TGTCATTAAA GAAACCAATA TTTGGCATCT	1260
GGTAGGCATT GTCCTTCTTG GCCTTATCAT AAGGGGCAAG ACCTGTTCCC ATATCCCATC	1320
CTTCTCCATA GAGGATAATG TTGGAGTCGA TTTTCATCAA GCTTTGACGA ATCATCTGCA	1380
TGGTCTTGAC ATCATGAATC CCCATCAAGT CAAAACGGAA GCCGTCAATA TTATATTCCT	1440
GCACCCAGTA TAGAAGAGAA TCAATCATAT ACTTGCGAAA CATTTTCGTGT TCACTGGCTG	1500
TTTCATTTCC AACACCCGTT CCATTCTGGA AGGTACCATC TGGATTCATA CGATAATAGT	1560
AATCAGGGAC TGTGTTTGG AATGGTGCAT CAACAAC TGA GAGGTATCG TTATAGACTA	1620
CATCCATAAT GACTCCAATA CCCGCATCGT GATAAGCTTG AACCATCACC TTCAAATCAC	1680
GAATGACCTG AGCTGGATCA TCTGGATTAG TTGAAAACT AGTTTCTGGC GCGTTATAGT	1740
TTTGTGGATC ATAACCCAG TTGTAGGTTA CATTTCCATC CTCATCGTAT TCTTTATCAC	1800
GGTCTGCAAT TGGTTGCAAT TGAACATAAT TGTAGCCCAG CTTCTTGATG TAATCAAAAG	1860
CAGTTGACTG GCCGTATTGG TTAAGTGTTC CAGCCTGAGC AGCACCCAAG AAAGTTCCTC	1920
GAAGATGTTT ATCTACACCC GATGTAGGTG ATTTAGTCAA ATCAGGAATG TGCAATTCAC	1980
AGATAACTGC CTTACATGGA TTTTCCAAGC GCCAAGTAGC CTCCGAACCG TGCTTAACCT	2040
CGAAGTTTTT AACTTGCTTT TCTACATGGC TCAGAATAGC TGAACGTTTG CCATCAGGGC	2100
TGGTCGCGAT TGTATAAGGA TCACGTGTCA GTGTTTGGTG ATGAGGGAAT TGGACTTGAT	2160
ACTGATAAGT CTTACCTACC AAATCTTCTT CAACATCCAA ACTCCAGACA CCGATTGTAT	2220

902

TGTCCTTATG ATTATAAGAG TAGCTATTGC CTCTTTTCAT CTCAAAAGTC TTCCAAACGG	2280
GTGCATCATT AGCAGCTGAT TCATAAACGA CAACCTGCAC TTCTGTCGCT GTAGGTGACC	2340
AGAGAGAAAA ATGAGCCTGA TTGTCTCTA CACGGCAACC CAATTCCTCT TGGTAACCCC	2400
AATGATGATC AAAACTAGCA CTGTTAATGG CCTTATCAAA GGCAAAAGGA TTTTGATTTT	2460
TATAGAAAGG ACTGGCAATA GCAGGATTTT CAGAGTAATA AATCCTATCA TCGCCTTCCA	2520
AAATCCAGAC CTCTGTTAAT AGGGGATAGT GATTAAAACG GATAGAATAT TCTTTACTAG	2580
TTTGACCTGT ATGAACCACA AAATTCAAGC TTTCTATAAC ATGTGAACTT GGGTGTTCAA	2640
AGCTAAATAA AGCTCCAAAA TAATCTTCTT TGTAGGTTAG CAAATCAATT CGTTGATCCT	2700
GACTTTTAC AAAGGAGCAA GTGTCATATT CTCCATTCTT ACGATGGTAA TGAATGCGCA	2760
TAGGGTAGTT ATACATTTTT TATTTTTCCT TTTACTTTG TTTCTATTTT ACTAATAAAT	2820
TTTTGTCAAT CTCGTCTCAA TTAACAGACA TAGTCATATT CTCTAAACTC TGTTTTTAAA	2880
CGATCCATTA CAAACTTTCT AGCCATGCCT CATCTCTGAC CTGGATACCA AGTTCTTGTG	2940
CTTTTTCAG TTTACTTCCA GCGTCTGCAC CTACCACGAC GAGGTCGGTC TTTTGTAGAA	3000
TACTACCTGT CACTTTGGCA CCCAGACTTT CGAGTTTACT TTTAGCTTCT GAGCGCTTGA	3060
GTCGTTCCAA TTTTCCTGTC AATACCACGG TCAAACCTGA CAAGGCCGCA TCCGCTACTA	3120
CCGTCTGTCC TTTATAGTCC AGATTGACCC CAGTTTCTTT CAATTCTCTG AGCAGAATTT	3180
CAGAGCCTTC TGTCGCAAAA TAAGTCTGAA GACTTTTGGC AATCACGCCA CCTAGACTTT	3240
CAATACTAGC CACTTCTCT GAATCTGCCT GAGACAGATT TTCAATTGAA TGGAAATATT	3300
GAAGTAAAAG CTGACTAACC TTGCTTCCGA CATGACGAAT TCCCAAACCA AATAAGAGCT	3360
TCTCGGCAGA ATTTTCCTTT GATGCTTGA TAGCCTGATA CAGTTTAGCA GCGGACTTTT	3420
CCTTAACTCC CTCTAAAAGG AGGAAATCCT CTTCTTGCAA ACGATAAATA TCCGCCACAT	3480
CCTTGACTAA ATTAGCAGCA AAAAGCTTCT CAACAATAGA TGGACCAAGG CCTGTAATAT	3540
TCATAGCATC ACGAGAAGCA AAGTGAATCA AGCCTTCCAT GATTTGAGCA GGGCAACGCG	3600
GATTGATACA ACGTAGGGCC ACTTCATCTT CAAAGTGCAA CAAGTCAGAG TTACAACTTG	3660
GACAGTTTGT AGGGATATCT AGTTTTTCTT CAGAAACCCG TTTGGACTCT ACCACACGTA	3720
AAACGGCAGG GATGATGTCA CCAGCCTTAT ATACAATGAC CGTATCGTCT TTTCGGATAT	3780
CTTTTTCAGC AATATAATCT ACATTGTGCA GGGTCGCACG GCTAACAGTC GTACCGGCAA	3840
GTTGTACTGG TGTTAGATTA GCAGTTGGAG TTACAACACC GGTACGGCCA ACTGTCCAGT	3900
CAACTGATAA GAGTTGAGCT TCTTTTTCTT CGGCAGGGAA CTTGTAGGCT ACTGCCCCACT	3960
TTGGAGCCTT AACTGTAAAA CCAAGTTCTT CTGACTTGC TAGGTCGTTG ACCTTGATTA	4020

CCACTCCATC AATATCGTAA GGCAGATTTT CCCGTTCTCTG TCCTACTTCT TGGATAAAAT	4080
TCCAGATTTT ATCTATGTTT TCAGCCAAGA TTCGCTTAGG ATTGACCACA AAACCTAGTT	4140
GTTCTAGGTA CTTCAAACCC TTTTCTTGGC TATCACGAGT TGAAGGGCTG GCTTCTTGAT	4200
AGAGAAACGT TGCAAGATTA CGCTTGGCAA CTAAGTGTGT ATCCAAGTGA CGCAGAGTTC	4260
CTGCTGCCGC ATTACGAGGA TTAGCAAAT CAGGCTCTCC ATTTTCTTGG CGCGCTTGGT	4320
TAACTTGGTC AAAGGAAGCG CGTGGCATGT AACATTCCCC ACGAACTGTG ATATCTAGTT	4380
CTTCTGGCAA AGTCAAAGGG ATGTCCTTAA CACGCTTGAG GTTTTCTGTG ATATTTTCAC	4440
CAATTGAACC ATCTCCACGT GTTACCCAG CAACCAAAAT CCCCTTTTCA TAAGTCAGCG	4500
AGATAGATAA GCCATCGATT TTCAGCTCAC AAATATAGGT CGGATGAGCC ACTTCCTTAC	4560
GAACACGCGC ATCAAAAGCA TCTAGCTCCT CACATGAAAA AGCATCCTGC AAACATAAAA	4620
GAGGATACTG ATGACTGTAT TTTTCAAAAC CATCTAAAAC CTTGCCACCA ACACGATGAG	4680
TCGGACTGTC TGCTAGCACT TGCTCTGGAT AAGCAGTTTC TAACTCGACC AACTCACGGT	4740
AAAGGCGGTC ATACTCACTG TCTGAAACCG AGGGATTATC GCTGGTATAG TACTCAGTCG	4800
CATAGCGATT GAGCAAAGCG ACTAACTCAT TCATTCTTTT ATTCATAAGA CCATTTTACC	4860
ATAAAACAAG CCTCCTCAC AAACGAGAAG GGCGGAAAAA AACTTAGTT TGAAATTATT	4920
TTTGAACTC AAGCAACCTT ATATCAATTT TTCAAATGA GTTCGAACAT ATCCGAGAGC	4980
TAAGAAATAT AAGGCTACAA CTCCAAGTCC AATAATCAAG AAAGAATAAA GATGGACACT	5040
TGGCAAGACT GTCATAAATC CTTTGTGCAAT AGGCATAAAT AGAATAGCTA AGGTAAAAAT	5100
TGTACTCAGT ACTCTTCCAA GAAATTCGCT CTCAACCTTG GTTTGTACTT GAGTAAAAAA	5160
GTGAATATTA AAAATCGTCA TAAACAATTC ACAAACTAAA TTTCCAGAAA AGGAAAGAAA	5220
AGTTGGAAGT GGTAATCCCA TCATAAAAAC TCCGACACCT GTCAAAGCCA GTAAAATCAA	5280
AAGATTATAA ATATTAGCTT TAATTTTACT AGCTAGAAGA GCCCAATGA TGGAACCAAT	5340
AGCCCCATA GTTAAATAC TTGCATAGGC TCCTTCTGAC CCGTAAAGCT GATTGAAAAA	5400
GGGAAGTAGA AATTCAAAAG CTGCAAAAAA GAAATTAACG CTGGAAGCTA CCAGCAAAAG	5460
GAAGAAAATT TCTTGCTGAT GCCAGATATA GTGTAACCCA TCCTTGATAT CTACAAAAAT	5520
ATCTCTCCCA GTAAAAGCCT TTTTCTCTTG AACTTTTGCT TCCTCTTTTG GAAGGAAAGC	5580
CACTAGAACA AAAGCAATGA AAAAAGTCAG CGAGTCTAGC AGTAGCGTCA TATGGAGACT	5640
TGCAAACTGT AAAACAAGGA AGGAAAGAAC AGGAGAGCTA ACACCTACAA CCTGCAAAAC	5700
CAGCTCTAAG CGAGAATTAT AGATCACAAT CTCATCTTTC TCCACCACTT CAGTTATGAT	5760

904

AGCTTTATTG GCTGTGCGAG AAAAGGCCAA AGCAATAGCC TGCACAATGT TAGCAACAAT	5820
CAAAGCGCCA ATCATCCAGC TATCATTCCT TATGAAAGAA ATAGCCAGAC AAAGAATCCC	5880
ACAAACAAGA TCTGCCGTCA TTAAAATCTT ACGACGAGAA AAACGGTCTG AAATAACTCC	5940
GCCAAAGGGA TTGACGAGAA TAGATGTGAC GAGCTCAGAA ATCTGATACA TTCCTAAAAC	6000
TGTCTGTCCT ATAGTCCCCA TAGAAGCCAA CCAGACACTA TTTCCATAAT CATAGAGCAT	6060
ATTTCCCATT TTATTGATAG CCCCACGGCT AATCAACTGC ACTGCATAGC GATTCATATT	6120
AAAGCTCCTC TCAAATTTTG AAACATTGT ATCAAAACCG AAAGGAGCTT TTTATTTTTT	6180
CCCTTATTTG GGAAATTAA CTTTTGACAA ATTTTTTCGT GTGTTCTGA TAATAGGCTA	6240
CTTGCTCTGG AAGACCTAAC ACATCAAAA TATGCATGGC CTCTTGCATC TGCTTACAGC	6300
CTTCTTTACA CTGTCCTTTT TGATATAAGG CAAAACCTTT TAAATAATGG AAAACATTAC	6360
GCTCATAAAG CTTAATACCT TTGTCAATAA TCTTCTCTGT ATAAGCCTCA AAATAGTTGG	6420
CATTATAAAA AGAAGAATGC TCTAAACAAT GCTGGTAACA ATTGAGGGCC AAAATCAACA	6480
CTAATCTCTT ATGGCGACTA ATCTCTTGGT AAAATTCCTC CCTCTCCATA ACTTCTCTAC	6540
CAATCCGAGT GACATAGTCT ACATCGTAGA AACTATAGAG GTTACCGAAA AGAATCAACT	6600
CATACATGGT CCATTCTTCT GTTTTGAAGA GATAATCTGC TACCTTACCC AAATCATCCT	6660
GCTTCATATC ATAACCTGCA TCTCTTTGAC AAATCAGACC TTGTAGCAAA ATCCAGTTCA	6720
GCTCAAAATA AAGGGGAGTC GTCGAACTCT TAGACTTTTC AAGTTGTTCT CTTTGAAGCT	6780
TTTGAAAACC TGCAATATCG TTTGAATAGT AAAGTGGGAT AATCTGTGCC ATCATAGACA	6840
CATGTTCATG ATTATGAAAA TTCCTTGCCT TATCCATGAA ATTTTCGATT GTTACATGAA	6900
TGTTATCCAA AATCTCAAAG AAACGGGAGA CTGCCAGGTC AGACTCCCCA AGCTCAAAGC	6960
GAGATAACTG AGAGGTAGAG CAGGATTGCG CTGCTGCTTC CTTTAAAGAA TAATTTCCAC	7020
TTGTTGCAAA TTCACGAAAT ACTTTTCCAA GATGTTCCAT CTTTACACCT GCTCTGATAA	7080
TTCTTCCCAC TCAAGCATAG CTTCTTCCTG ACGATGGCTG ATTTTGTCCA GCTCAGCCTG	7140
TAATTCCATG AGTTTGTCGG CATCGTTTGT TTCCAACATT TGTTGAGAAA TGGCTTGGCT	7200
TTGACTTTCT AGCTCTTCAA TTTCAGCTTC TAGACTTTTCG ATTTGTCGCA TGAGTTTGGC	7260
AACTTCTTTT TGACTTTCTT TCTGGGCCTG ATAGTCATTG ACTGGACTTG CTTCTTTGTC	7320
TTGATTGCTA GTTGAAGCTT CCTCAGTCTG ACTCATTTCT GCTGTTGCTT TCTTCTCAAC	7380
ATAGTAGTCG TAATCTCCAA GGTAGAGAGT TGAACCATTC TCAGACAATT CAAAACATG	7440
AGTTGCCACA CGATTGATAA AGTAACGATC ATGACTGACA AACAGCAAGG TTCCATCAAA	7500
GTCAATCAAG GCATTTTCTA GCACTTCCTT ACTATCAATA TCCAAGTGGT TGGTCGGCTC	7560

905

ATCCAGAATC AAAAAGTTAT TGTTTTCCAT AGACAATTTA GCTAAAAGCA AACGAGCTTT	7620
TTCGCCACCA GATAGCATGC CGACTGATTT TTTAACATCA TCTCCTGAGA AAAGGAAGGC	7680
TCCAAGACGG TTGCGGATTT CAACTTCTGG TGTCAGTTTG AAATCATTCC AGAGTTCATC	7740
CAGCACCGTA TTA CTCTGGTG TCAGCTTGCT TTGGGTTTGG TCATAGTAAC CAACCTCAAC	7800
ATTAGCGCCA AAGCGCTTTT CTCCCTTGAT AAAAGGAATC TGGTCCACAA TAGACTTGAT	7860
AAAGGTTGAC TTGCCGATAC CATTGAGACC AACGATAGCG ACAGCATTCA TCTTACGAAG	7920
ATCTAGGTTA ATCGGTTGTG ACAAGACTTC CCCGTCATAG CCAACAGCTG CATTTC AAC	7980
AGTCAAAACA ACATTGCCCC ACGTTTTTTC AGACTGGAAG GTCATGTTGG CTGATTTCTT	8040
GCCAGCTTCA GGCTTGTTCA AACGTTCCAT TTTTCCAGT TGTTTACGGC GAGATTGAGC	8100
ACGTTTAGTC GTTGAAGCAC GAACTAGATT GCGATTGACA AAGTCTTCCA GAGCAGCGAT	8160
TTCTTTCTGT TGCTTTTCAT AGTTTTTTGC CTCAGTAACT AGCTTTTGCT CCTTCAATTC	8220
GACAAAACGA GAGTAATTCC CCACATAGCG ATCCAAGGAA TGCTTGGTCA AATCTAGCGT	8280
AATTGTCGCA ACCTTGTTCA AGAAATAACG GTCGTGGCTG ACGATAATGA GGGCACCCTG	8340
ATAGTTTACC AAGTAATTCT CTAGCCAGGC GATGGTTTCA ATATCCAAGT GGTAGTTGG	8400
CTCGTCCAAG ACCAAGAGAT TGGGCTTTTC AAGGAGCATT TTGGCAAGTG CCAAACGAGT	8460
ATTTTGACCA CCAGAAAGCT CAGCAATTTT CATCTGCCAC ATAGACTCGT CAAACTTGAA	8520
TCCATTCAAA ATCGCTCGAA TATCAGCTTC ATAGGTAAAG CCACCTGCTT GGCAGAAATT	8580
CTCAGATAAG CGGTCATAAT CTGACATCAG TTTATCCAAA TCCTCACCAG ACTTTTCACC	8640
CATCTCCAGC TCCATCTGAC GCAGTTGTCT CTCCGTCCGA CGCAAATCAT TAAAGACATG	8700
AAGCATTTC ACGTAGATGG TATTTTCAGA CTCAAAACGG CTATCTTGGG CTAGGTAAGA	8760
CAGAGAAATA TCTTTTTTCT TATTGATTTT TCCGCTAGTT GGCTCCTCTT CTCCAATAA	8820
AATCTTCAAA AGAGTAGACT TACCTGCACC ATTTTTCCTA ACAAGAGCAA TCCGATCTCG	8880
TTCATCAACC TGCAGGTTGA TATTATCGAA AAGAACCTCT CCTGCAAAAG AACGTTCAAT	8940
TTTATTAGCT TGTAATAATA TCATACAAGT AGTATAGCAT GTTCCCTAA GGCATTCAAG	9000
ATAATCGTAA GTCTTTTAGT ACAACTTTTA TAACATAAAA TAACTAAAT TATGTATATT	9060
TTATATTAGA TTA CTCTCACT ATCTTGTTGG ATTTTCTAAC CAGCTAATCT TGTTTCAAAT	9120
AGTTATCGCA CAAGTCTATT ATTTAATCTT TTTCATCATT TACGTACGTA TAGCAGATTG	9180
AAATAAGATG AGAACAAATC GATTGGGAAA GTAAATTA TTTCTATAAA TGTTTATGCA	9240
ATTGTTTCGT ACTATTTTAG ATTCAGTCTA CTATATACAA TATTTTCGGA ACATTCAACT	9300

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TTTAACTCT ATTTATTACT AGATTTTCATA ATTAAAAAAC CTACTGACCA AGCTAGAAAG	9360
CTTGATACAA TAGGCTTTTT AAAGACTGAT TATTTAACAG CGTCTTTAAG AGCTTTACCA	9420
GCTTTGAATG CTGGTACTTT AGAAGCTGCA ATTGTCATTT CTTTACCAGT TTGTGGGTTG	9480
CGACCTTTAC GTTCTGCGCG CTCACGAACT TCAAAGTTAC CAAAACCGAT CAATTGAACT	9540
T	9541

(2) INFORMATION FOR SEQ ID NO: 133:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 3502 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 133:

TTGACTATCC TATCATGCTT TCTAAGGTCT ACTCAAGAAA ATCATTTTCA AGTTTTTACA	60
CCTTTCTCAA AAAAGTTAAA AAATTTTCTC AAAAACGCTT GACTCTGACC TAAGGCGAAG	120
GGTTATACTA TCATTGTAAG GAGGAAATCA TGTACCATAT AAAAGAAGCT GCGCAGCTTT	180
CAGGTGTCTC TGTCAAGACC CTGCATCACT ATGACAAGAT AGGACTCTTG GTCCCTTAA	240
AGTCGGAAAA CGGCTATCGA ACCTACAGTC AAGAGGATTT GGAACGCCTT CAGGTCATTC	300
TTTACTACAA ATATCTAGGC TTTTCTTTAG AGAAAATAGC AGAGCTGTTA AAGGAAGAAA	360
GGACAGATTT ATTGCCCCAT TTGACTAGGC AGTTGGACTA TCTAACTCGC GAAAGGCAAC	420
ATCTGGATAC CTTGATTTC ACCTTGCAAA AAATATTCA AGAACAAAAA GGAGAAAGAA	480
AAATGACCAT TGAGGAAAAA TTCACGGGAT TTAGCTATCA AGACAATCAA AAATACCACC	540
AAGAAGCGGT AGAGAAATAT GGTCAAGAAG TCATGGGACA AGCGCTCGAA CGCCAAAAAG	600
GTCACGAAGA CGAGGCTACG GCCGCCTTTA ACCAAGTCTT TCAAACCTTG GCACAAAATC	660
TTCAAGTTGG TTTACCTGCA ACAGCAACCG AAAACCAGGA GCAAGCAGCC AAGCTCTTGC	720
AAGCCATTCG CACTTATGGA TTTGACTGCT CTATTGAGGT ATTCGGTCAT ATCGGTAAAG	780
GTTACGTCTA CAACCCAGAG TTTAAGGAAA ACATTGACAA GTTTGGTTCT GAAACAGCCC	840
AGTACACGTC AGATGCCATT GCGGTTTACG TTCAGACAAA TGCAGAATAA ATAGGCTAGG	900
AATTTCCCTAG CCTATTTTTT ACTTCAAATC ATAAAGCCAG TCGTCACCGT TTTTGTAGTA	960
AAAGAATTCA CTGAGATCTT CTTCTAGAAA CACACGAAGC ATATCAGACA TATCATCGGT	1020
TGCAAGTTTT AGATGAGAAA GATTTTCAAA GTCTCCAC CAACTTTCC CTTCGTCTGA	1080
AGACTGGAGT TCACCAGTAA AGTGTCTGT CTTGTAAAAA AGGACGACAT AACGATAATC	1140

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CTTGTCGTCA TACCAGTTTT TGATACCACA GAGTTGGGGT TTGGAAATGA TCAGACCAGT	1200
TTCTTCTTTC ACTTCACGAA TGACAGCATC GACAAAGGAT TCGCCACGTT CAACATGACC	1260
ACCAGGAAAA GTAATGCCAG ACCAGTCGGG ATTAACTCGG TCTTGGACCA GGACCTTATC	1320
TCCGTTTTTA ATCATAACA TGTAAACAAA TTCGACTGCC TCTCTTCTGT TCATTCTTCA	1380
CAACCTTTAA TCTTTAATCA TAATGCAGAC TTCCCGCCAC CCAGCCGGTA CAGAGGGCAG	1440
AAGTGATGTT AAAGCCACCC GTGTGGGCAT TGATATCCAT AACTTCGCCT GCAAAGTGGA	1500
GGCCAGGTAC CAGCTTACTT TCAAGGGTTT TAGGATTGAT TTCCTTGAGA CTGACTCCAC	1560
CCTTGGTAAAC AAAGGACTTT GCAAGGGACA TTTTTCAGT TACAGGAATT TTAAGTTCTT	1620
TAATGGACTG GACAAGTTGT TCTCGTTCCT TTTCAGTCAG TTGTTTGACT TTTTCAGGAT	1680
ATCCTTGATC AAAAAATTCG GCCAAGCGTT CTGGTAACAA GGTTTTTTAAA GCGTTTTTCA	1740
AGGATTTTTT CCGATTTTCT TCTAGAAATG TAACCAAGTC CTTCTCAGAA AGTTGAGGCA	1800
AAACATCGAG TGAGAGAACC TCCCCACCTT TGACAAAGCT AGACATGCGT AGGGCAGCAG	1860
GACCTGACAA ACCAAAGTGG GTAAAGAGTA AATCATGAGT GATGACATGC TTACCATAAC	1920
TTAGGGTCAC ATCGTCCAGA GAAATACCTT GTAAGGCTTT ATGTGGAATA TCTGTTAATA	1980
AAGGACTTTC AGCAGCCTCA AGATCGGTGA TGGTATGCTT AAAATGGCGA GCAATCTCGT	2040
GACCAAACC AGTCGAACCA GTCGAAGGAT AAGACTTACC ACCTGTTGTG ACAATGAGTT	2100
TCTCACAAGT GAAGGTTTGA TCCGCTGACT TAAGGACAAA CTGGTCATCT ACTTTTTTAA	2160
CAGAAACGAT TTCTATTTGA GTAGCAACTT GACCACCTAG TTCGGTGATT TTCTTTTCCA	2220
AAGCTTCGAT AATAGTCCGA GACTTGTCAC TGGCTGAAA GACGCGTCCG TGGTCTTCGA	2280
CCTTAAGTTT AACACCATT TCTGTAAAAA AGTTGATGAT GTCATGATTA TCGAACTGGG	2340
AGAAAACACT GTAAAGAAAG CGTCCGTTTC CAGGAATTCC AGCTAGCAGG TTGTCTAAGC	2400
TACCATTGTT GGTACATTG CAACGTCCCC CACCAGTCCC AGCTAATTTT TTTCCAAGTT	2460
TCCGATTTTT TTCGATGAGG AGGGTTTTCT GTCCATAAAA GCTACTGGAA ATCGTAGCCA	2520
TCATACCAGC AGGTCCCCCA CCGATGACAA TAGTATCAAA ATGTTTCATA GCTCTATTGT	2580
ACCACAAAAA AACAAGAGAT GATGGTCACC TCTTGTCAG AATGCAATTA ATCAATTTCA	2640
TAGCCCATCA GCAAACCGCC CTCTTCTGCA TAGAACTGC AGAGACCAGA GGTTGGTAGA	2700
ATTTTAATAT CCGCTTGTGG GAAGGTTTCA CGGATTCGCT CTGAGACCTG TTGACAACAT	2760
TTTTCGTTAT TGCCTTGGGC CATGACAATA CGGCCACCAG CATATCCAGC TTTTACTAAC	2820
TCATCATAGG CAGCTTGAAC TGATTTCTTT GATCCCCCTG CTTTTTGTAG CAATTCGAGA	2880

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GTCCCAGTTT CACTAGCTTT TCCGACCATA CGAATGTTGA GAAGGCCAAC GACCGTACCG	2940
ATAAGCTTGC TCAAACGGCC GTTCTTCACC AAGTTATCGA CTTTGGCTAG GACAAAGAGC	3000
AACTTAGTTT TTTCTTGATA GGCGGTGATA GCTTCAACCA CTTCTTCAA AGACAAGCCC	3060
TGGTCAATCA AGTCATTCAA TTTTCTACG AGTAGGTCAA CTTACCACC AGCAGATAAA	3120
CTATCAATCA CATGAATCTT AGTGTCAAGG TGGTCTTCCA GATAAATATT CTTTGCTAGT	3180
TGAGCACTAT TGTGACTGCC AGAAAGGGTA CCTGTGATGG TTACTAGGAA AATGTTTTTG	3240
GCACCTTCAA ATGCTCGCAA ATAGTCATCT GGGCTTGGAC AAGCCGATTT TGAAGCTTCT	3300
GCAGTTGCAT ACATGGTTTC CATCATTTGG TCAATATCGA GACTGGCGTC ATCAACAAAG	3360
ACCTGATCAG CTACTTGAAT GGTAAAGGGG AACTTACAA AGGTTGTGTT AATAGCTGGT	3420
GTTGGCAGTT GACGATAATC ACAACCAGAG TCAGCAATAA TCTTCCAAGT CATAGAAATT	3480
CTCCATCTTT GTCAGGAACG AT	3502

(2) INFORMATION FOR SEQ ID NO: 134:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 12665 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: double
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 134:

CGATTGATTT TTTTAAAGCG TTCGATAGAG AATGAGAAAC GAATCCTTAG CAATGGCGGG	60
AAAGAATTTG GAGTTGAGAA TACAAAACGA TTAATATGG CTCATATTGT TTTTATCTC	120
TCTTGCTTGG TTGAGGCAAT GGTGCACAAG ACAATTTTGG ATGGCATGGG CATGGTTGGT	180
TTAGTCTTGC TTATTTTTTC TATGCTGATG TTGATGTTGG TGATTCACCT GTTGGGAGAT	240
ATTTGGACAG TGAAGCTTAT GCTTGTCAAT AATCACAAAT ATGTAGATCA TATCTTGTTT	300
AGGACAGTAA AACACCCTAA TTACTTTTTA AATATTCTTC CTGAGTTGAT TGGCTTGACC	360
TTGTTGAGTC ATGCTTATGT GACTTTTGT TTAGTTTTTC CAGTTTATGC AGTTATTTTG	420
TATCGACGAA TAGCTGAAGA GGAAAAGCTA TTACATGAAG TTATAATCCC AAATGGAAGC	480
ATAAAGAGAT AAATACAAAA TTCGATTTAT ATACAGTTCA TATTGAAGTG ATATAGTAAG	540
GTTAAAGAAA AAATATAGAA GGAAATAAAC ATGTTTGCAT CAAAAGCGA AAGAAAAGTA	600
CATTATTCAA TTCGTAAATT TAGTGTTGGA GTAGCTAGTG TAGTTGTTGC CAGTCTTGTT	660
ATGGGAAGTG TGGTTCATGC GACAGAGAAC GAGGGAGCTA CCCAAGTACC CACTTCTTCT	720
AATAGGGCAA ATGAAAGTCA GGCAGAACAA GGAGAACAAC CTAAAAACT CGATTCAGAA	780

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CGAGATAAGG CAAGGAAAGA GGTGAGGAA TATGTAAAAA AAATAGTGGG TGAGAGCTAT	840
GCAAAATCAA CTAAAAAGCG ACATACAATT ACTGTAGCTC TAGTTAACGA GTTGAACAAC	900
ATTAAGAACG AGTATTTGAA TAAAATAGTT GAATCAACCT CAGAAAGCCA ACTACAGATA	960
CTGATGATGG AGAGTCGATC AAAAGTAGAT GAAGCTGTGT CTAAGTTTGA AAAGGACTCA	1020
TCTTCTTCGT CAAGTTCAGA CTCTTCCACT AAACCGGAAG CTTTCAGATAC AGCGAAGCCA	1080
AACAAGCCGA CAGAACCAGG AGAAAAGGTA GCAGAAGCTA AGAAGAAGGT TGAAGAAGCT	1140
GAGAAAAAAG CCAAGGATCA AAAAGAAGAA GATCGTCGTA ACTACCCAAC CATTACTTAC	1200
AAAACGCTTG AACTTGAAAT TGCTGAGTCC GATGTGGAAG TTA AAAAAGC GGAGCTTGAA	1260
CTAGTAAAAG TGAAAGCTAA CGAACCTCGA GACGAGCAAA AAATTAAGCA AGCAGAAGCG	1320
GAAGTTGAGA GTAAACAAGC TGAGGCTACA AGGTAAAAA AAATCAAGAC AGATCGTGAA	1380
GAAGCAGAAG AAGAAGCTAA ACGAAGAGCA GATGCTAAAG AGCAAGGTAA ACCAAAGGGG	1440
CGGGCAAAAC GAGGAGTTCC TGGAGAGCTA GCAACACCTG ATAAAAAAGA AAATGATGCG	1500
AAGTCTTCAG ATTCTAGCGT AGGTGAAGAA ACTCTTCCAA GCCCATCCCT GAAACCAGAA	1560
AAAAAGGTAG CAGAAGCTGA GAAGAAGGTT GAAGAAGCTA AGAAAAAAGC CGAGGATCAA	1620
AAAGAAGAAG ATCGCCGTAA CTACCCAACC AATACTTACA AAACGCTTGA ACTTGAAATT	1680
GCTGAGTCCG ATGTGGAAGT TAAAAAGCG GAGCTTGAAC TAGTAAAAGA GGAAGCTAAG	1740
GAACCTCGAA ACGAGGAAAA AGTTAAGCAA GCAAAAGCGG AAGTTGAGAG TAAAAAGCT	1800
GAGGCTACAA GGTAGAAAA AATCAAGACA GATCGTAAAA AAGCAGAAGA AGAAGCTAAA	1860
CGAAAAGCAG CAGAAGAAGA TAAAGTTAAA GAAAAACCAG CTGAACAACC ACAACCAGCG	1920
CCGGCTCCAA AAGCAGAAAA ACCAGCTCCA GCTCCAAAAC CAGAGAATCC AGCTGAACAA	1980
CCAAAAGCAG AAAAACCAGC TGATCAACAA GCTGAAGAAG ACTATGCTCG TAGATCAGAA	2040
GAAGAATATA ATCGCTTGAC TCAACAGCAA CCGCCAAAAA CTGAAAAACC AGCACAACCA	2100
TCTACTCCAA AAACAGGCTG GAAACAAGAA AACGGTATGT GGTACTTCTA CAATACTGAT	2160
GGTTCAATGG CGACAGGATG GCTCCAAAAC AATGGCTCAT GGTACTACCT CAACAGCAAT	2220
GGCGCTATGG CGACAGGATG GCTCCAAAAC AATGGTTCAT GGTACTATCT AAACGCTAAT	2280
GGTTCAATGG CAACAGGATG GCTCCAAAAC AATGGTTCAT GGTACTACCT AAACGCTAAT	2340
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GGTTCAATGG CGACAGGATG GCTCCAATAC AATGGCTCAT GGTACTACCT AAACGCTAAT	2460
GGTGATATGG CGACAGGTTG GGTGAAAGAT GGAGATACCT GGTACTATCT TGAAGCATCA	2520

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GGTGCTATGA AAGCAAGCCA ATGGTTCAAA GTATCAGATA AATGGTACTA TGTCATGGC	2580
TCAGGTGCCC TTGCAGTCAA CACAACGTGA GATGGCTATG GAGTCAATGC CAATGGTGAA	2640
TGGGTAACT AAACCTAATA TAACTAGTTA ATACTGACTT CCTGTAAGAA CTCTTTAAAG	2700
TATTCCTAC AAATACCATA TCCTTTCAGT AGATAATATA CCCTTGTAGG AAGTTTAGAT	2760
TAAAAAATAA CTCTGTAATC TCTAGCCGGA TTTATAGCGC TAGAGACTAC GGAGTTTTTT	2820
TGATGAGGAA AGAATGGCGG CATTCAAGAG GCTCTTTAAG AGAGTTACGG GTTTTAACT	2880
ATTAAGCCTT CTCCAATTGC AAGAGGGTTT CAATCTCTGC CAGGGTGCTG GCTTGCGAAA	2940
TGGCTCCACG GAGTTTGGCA GCGCCAGATG TTCCACGGAG ATAGTGAGGA GCGAGACCGC	3000
GGAATTCACG AACTGCGACG TTTTCTCCTT TGAGGTAAAT CAATCGTTTC AAGTGTTTCGT	3060
AGGCGATCTT CATCTTGTCT TCAAAGGTCA AATCAGGTAG GATTTCTCCT GTTTCAAAGT	3120
AATGGTTGAT TTGGTTGAAG AGGTAAGGAT TTCCCATGGC AGCTCGGCCA ATCATGACTG	3180
CGTCAGCACC AACTTCTTCG ATGCGTTGCT TGGCTTCTTG GACAGTACGG ATATCACCGT	3240
TGGCGATGAA TGGAATCTTG GTTAGAGCTT GGGCAACCTT GTAAAGGGTC TCAAGGTCTG	3300
CGTGGCCAGT ATACATTTGT TCACGGGTAC GGCCATGCAT GGCGAGGGCA GAAACACCTG	3360
CAGCTTCAGC AGCGAGAGCA TTTTCTACTG CAAGAGATGG GTCCGCCCAG CCGGTACGCA	3420
TTTTGACAGT AAGTGGGATA TCAAGGACAG ACTGGACCTT GTTGATGATG GAGTAAATCT	3480
TGTCTGGATC CTGAGCCAC ATAGCACCAG CTTCGTTCTT CACGATTTTG TTGACAGGGC	3540
AGCCCATGTT GATATCGACG ATATCGGTCT TGGTGTTTTC TTGGATGAAT TCTGCTGCGC	3600
GTGCTAGGCT GTCTTCATCG CTACCAAAAA GTTGATAGA GACAGGGTTT TCGCCCTCAT	3660
CGATATGAAG CATGTGCAGG GTTTTTTCGT TGTGTATTG GATTCCCTTG TCAGAGACCA	3720
TTTCATTAC AACGAGTCCA GTCCTGAGCT CCTTTGCCAT AGTACGAAAG GCTGAGTTGG	3780
TCACGCCAGC CATAGGCGCT AAAACGGTAC GATTGGGAAT CTCAATATTG CCAATCATAA	3840
AAGGTGTATT AAGATTTGTC ACGAATGAGT TCCTCCAGGT CCTTTTCATC AAAGTTGTAA	3900
GTAGTTTGGC AGAATTGACA AGTGATTTCT GCGCCGTGGT CTTCTCTTTT CATTTCTGT	3960
AAGTCTGAGC TTGGAAGGCT GGCAAGAGCG TTCATAAAGC GTTCATGGCT ACAGTCACAT	4020
TGGAAACGGA TTTCTTCTTC AGAAAGACGC TTGTAGGCTT CGTCCCCGTA GATAGCCTTG	4080
AGGAGGGCTT CGATATGGTC GTCGCTTTCG AGAAGAGTAG AGATAGCTGG CATTTCTTGG	4140
ATGCGTTTTT CAAAGCGAGC AATCTCTTCT TTCTTGCTC CTGGCAAGAC TTGAACTAGG	4200
AAACCACCTG CAACCTTGAC CTTGTCTTCC TCGTCCAAAA GGACATTGAG GCCGACCGCT	4260
GAAGGCGTTT GTTGGCTTTC AGTAAGGTAA AAGGCAAGGT CTTACCCGAT TTCTCCAGAG	4320

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ATGAGGGGAG TTATAGAGTT GTAAGGATTT CCAGTACCGT AGTCTGTGAT AACGAGGAAT	4380
TGACCATTTTC CAACAAAAGG TCCGACTAGG ACTTCACCAG TCGCAGTCTT TTTGATGTCA	4440
ACACCAGGAT TTTGAACATA GCCTTTGACG TTCCCCTTGG TATCAGCGAC GGTGATAATA	4500
GCACCTAGAG AGCTAGATCC CAACACCTTA ACTGTAAGTT TGGTATTTCC TTTTTCATTG	4560
GCTGCGAGAA TCTGGCTAGC GATAAGAGTT CGACCAAGCG CTACAGTTGA GCTAGCTTGG	4620
GTTTGATGTT TTTCTTGAGC AGTGCGGACG GTTTCAGTGC TATCAAGGAC AAAAGCACGA	4680
AAGGcTCCGC TTTCTGATAT AGTTTAAATA ATTTTATCCA TAGCTACTAT TTTAGCATAA	4740
AAATGCCCAA AGGGGGAGCC GTGTGTTTAC TGATTTTCAG GATAATGGAC CAGGAAATCA	4800
GCATGAAAAT AAAAAGAGAA ACAGATTATT TTAGCATTTG TCAGATTTAT GCTATGCTTA	4860
AGGTAGAAAA TGAAAGGGAT AACAAATGTA TTTAGGAGAT TTGATGGAGA AAGCCGAGTG	4920
TGGTCAATTT TCAATACTTT CCTTTCTATT ACAAGAGTCT CAGACGACCG TCAAGGCTGT	4980
AATGGAAGAA ACAGGATTTT CAAAAGCAAC CCTAACCAA TATGTCACCC TGCTCAATGA	5040
CAAGGCTTTG GATAGTGGCT TAGAGCTGGC TATTCACCTA GAAGATGAAA ATCTGCGTCT	5100
GTCTATCGGT GCAGCTACCA AGGGGAGAGA TATTCGGAGC TTGTTTTTGG AGAGTGCTGT	5160
TAAATACCAG ATTTTGTTTT ATCTTCTCTA CCACCAACAG TTTTLAGCCC ATCAGCTGGC	5220
TCAAGAATTG GTGATTAGCG AGGCTACGCT TGGTCGTCAC TTGGCTGGTT TAAATCAGAT	5280
TTTGTCAGAA TTTGATTTAT CCATCCAAAA TGGCCGTTGG CGAGGTCCAG AGCATCAGAT	5340
TCACTATTTT TATTTCTGTC TTTTCCGAAA GGTCGCTCG AGTCAGGAAT GGAAGGTCA	5400
CATGCAGAAA CCAGAGAGAA AACAGGAGAT TGCCAATTTA GAGGAAATCT GCGGTGCAAG	5460
TTTGCTCTCG GGGCAGAAAT TGGACTTGGT TCTCTGGGCT CACATCAGTC AACAACGTCT	5520
TCGGGTCAAT GCTTGTCACT TTCAAGTCAT AGAAGAGAAA ATGCGAGGGT ATTTTGACAA	5580
TATCTTTTAT CTTCTGTTGC TGAGAAAGGT TCCGTCCTTT TTTGCTGGGC AACATATTCC	5640
ACTAGGAGTT GAGGATGGTG AGATGATGAT ATTCTTCTCT TTTCTCCTAT CTCATCGCAT	5700
TCTTCCTCTT CATACTATGG AGTATATTCT TGGTTTTGGA GGGCAGTTGG CAGATTTACT	5760
GACGCAATTG ATTCAAGAAA TGAAGAAGGA GGAATATTG GGGGATTATA CAGAGGACCA	5820
TGTCACCTAT GAACTCAGTC AGCTTTGTGC TCAAGTCTAT CTCTATAAGG GCTATATTTT	5880
ACAGGATCGC TACAAGTACC AGTTAGAGAA TCGTCATCCA TATTTACTGA TGGAACATGA	5940
TTTTAAAGAG ACAGCAGAGG AGATTTTCA TGCTCTACCT GCTTTTCAAC AGGGGACAGA	6000
TTTAGATAAG AAGATTCTCT GGAATGGCT CCAGTTAATC GAATATATGG CTGAAAACGG	6060

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TGGCCAGCAT ATGCGGATTG GTCTGGATTG GACATCTGGT TTTCTTGTCT TTTCAAGGAT	6120
GGCAGCCATT TTGAAACGGT ATTTGGAATA CAATCGTTTT ATTACCATTG AAGCTTATGA	6180
CCCTAGTCGG CATTATGATT TGCTGGTTAC CAATAACCCG ATTCATAAGA AGGAACAGAC	6240
ACCAGTCTAT TATTTAAAAA ATGACTTGGA TATGGAGGAT TTGGTAGCGA TTCGCCAGTT	6300
ATTATTCACT TAAAAGGCTT GGTAAATCCA GGTCTTTTTT GTGAAATTCA CACAATCTCC	6360
TCACATTTTT TAAAAATTA AAAAAAGTTG ATAAACAAGA AAGCGCTTTA TTTTGTATAC	6420
TAGTAAGTGT AAAGAGGAAA CACCTCAAGA TCTTTATCAG GAGGACAGTA CATGTCACAA	6480
GAAAAATACA TCATGGCCAT TGACCAGGGA ACTACAAGTT CTCGTGCCAT CATTTTCAAC	6540
AAAAAAGGGG AAAAGGTTAG CTCGAGTCAA AAAGAGTTTA CCCAGATTTT CCCTCAGGCA	6600
GGTTGGGTTG AGCACAATGC CAATGAAATT TGGAAGTCTG TTCAGTCAGT TATTGCGGGT	6660
GCTTTCATCG AAAGTGGTGT CAAGCCAAAT CAAATCGAGG CAATCGGGAT TACCAACCAA	6720
CGTGAAACAA CGTTGTCTG GGATAAGAAA ACAGGACTTC CTATCTACAA TGCTATCGTT	6780
TGGCAGTCAC GCCAGACAGC ACCTTTGGCT GAGCAACTAA AAAGCCAAGG TTATGTGGAA	6840
AAATTCATG AAAAGACTGG TTTGATTATT GATGCTTACT TCTCTGCTAC CAAGGTTTCT	6900
TGGATTTTGG ATCATGTAGA AGGTGCTCAA GAGCGAGCAG AAAAAGGGGA ATTGCTCTTT	6960
GGTACTATCG ATRACTGGTT GGTTTGGAAG TTGACTGACG GTGCGGCTCA CGTGACTGAC	7020
TACTCAAATG CAGCTCGTAC CATGCTTTAT AACATTAAAG AACTCAAATG GGATGATGAG	7080
ATTTTGGAAG TCCTTAACAT TCCGAAGGCT ATRACTCCAG AAGTTCGTTT TAACTCCGAA	7140
ATCTACGGCA AGACAGCTCC ATTCCATTTC TACGGTGGAG AGGTGCCAAT CTCAGGTATG	7200
GCTGGGGACC AACAAGCAGC CCTCTTTGGA CAGTTGGCTT TTGAGCCAGG TATGGTTAAG	7260
AATACTTATG GAACAGGCTC TTTCATCATC ATGAATACTG GGAAGAGAT GCAGTTGTCT	7320
GAAACAACC TCTTGACAAC CATTGGTTAC GGAATCAACG GTAAGGTTTA TTATGCCTTG	7380
GAAGGTTCTA TCTTCATCGC AGGAAGTGCT ATTCAGTGGC TTCGTGACGG TCTTCGCATG	7440
GTTGAAAATT CACCAGAATC TGAAAAATAC GCTCGTGATT CTCACAACAA CGATGAAGTT	7500
TATGTCGTTT CAGCCTTTAC AGGTCTAGGC GCTCCATACT GGAACCAAAA TGCTCGTGGT	7560
TCCGTCTTTG GTTTGACTCG TGGAACAAGC AAAGAAGACT TTATCAAGGC GACTTTGCAA	7620
TCTATTGCTT ATCAAGTGCG TGATATCATC GACACCATGC AAGTGGATAC TCAGACCGCC	7680
ATTCAAGTAC TGAAGGTGGA TGGTGGTGCA GCCATGAACA ACTTCCTCAT GCAGTTCCAG	7740
GCGGATATTT TAGGCATTGA CATTGCACGT GCTAAAAACC TGGAACAAC AGCTCTAGGA	7800
GCGGCCTTCC TAGCAGGTTT GTCAGTAGGG TACTGGAAAG ACTTGACGA GTTGAAACTC	7860

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TTGAACGAGA CAGGAGAACT CTTTGAGCCA TCTATGAACG AATCTCGCAA GGAACAACCTC	7920
TACAAGGGCT GGAAGAAGGC TGTGAAAGCA ACTCAAGTCT TTGCGGAAGT AGACGACTAA	7980
TACTGGCAGA ATAAAGCGAT TTATTTAGAA AGTGTGTAAA TATGGAATTT TCAAAGAAAA	8040
CACGTGAATT GTCAATTAAA AAAATGCAGG AACGTACCCT GGACCTCTTG ATTATCGGTG	8100
GAGGAATCAC AGGAGCTGGT GTAGCCTTGC AGGCGGCAGC TAGCGGTCTT GAGACTGGTT	8160
TGATTGAAAT GCAAGACTTT GCAGAAGGAA CATCTAGTCG TTCAACAAAA TTGGTTCACG	8220
GAGGACTTCG TTACCTCAAA CAATTTGACG TAGAAGTGGT CTCAGATACG GTTTCTGAAC	8280
GTGCAGTGGT TCAACAAATC GCTCCACACA TTCCAAATC AGATCCAATG CTCTTACCAG	8340
TTTACGATGA AGATGGAGCA ACCTTTAGCC TCTTCCGTCT TAAAGTAGCC ATGGACTTGT	8400
ACGACCTCTT GGCAGGTGTT AGCAACACAC CAGCTGCGAA CAAGGTTTTG AGCAAGGATC	8460
AAGTCTTGGA ACGCCAGCCA AACTTGAAGA AGGAAGCCTT GGTAGGAGGT GGAGTGTATC	8520
TTGACTTCCG TAACAACGAT GCGCGTCTCG TGATTGAAAA CATCAAACGT GCCAACCAAG	8580
ACGGTGCCCT CATTGCCAAC CACGTGAAGG CAGAAGGCTT CCTCTTTGAC GAAAGTGGCA	8640
AGATTACAGG TGTTGTAGCT CGTGATCTCT TGACAGACCA AGTGTGTTGAA ATCAAGGCCC	8700
GTCTGGTTAT TAATACAACA GGTCCCTGGA GTGATAAAGT ACGTAATTTG TCTAATAAGG	8760
GAACGCAATT CTCACAAATG CGCCCAACTA AGGGAGTTCA CTTGGTAGTA GATTCAAGCA	8820
AAATCAAGGT TTCACAGCCA GTTACTTCG ACACAGGTTT GGGTGACGGT CGTATGGTCT	8880
TTGTTCTCCC ACGTGAAAAC AAGACTTACT TTGGTACAAC TGATACAGAC TACACAGGTG	8940
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GTCCATTGAT TGCAGGGAAC AGTGCCTCTG ACTATAATGG TGGAAATAAC GGTACCATCA	9120
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CACGTGAAGA TGTGAGTCT GCTGTCAGCA AGCTTGAAAG TAGCACATCT GAGAAACATT	9240
TGGATCCATC TGCAGTTTCT CGTGGGTCTA GCTTGGACCG TGATGACAAT GGTCTCTTGA	9300
CTCTTGCTGG TGGTAAAATC ACAGACTACC GTAAGATGGC TGAAGGAGCT ATGGAGCGCG	9360
TGGTTGACAT CCTCAAAGCA GAATTTGACC GTAGCTTTAA ATTGATCAAT TCTAAAACCTT	9420
ACCCTGTTTC AGGTGGAGAA TTGAACCCAG CAAATGTGGA TTCAGAAATC GAAGCCTTTG	9480
CGCAACTTGG AGTATCACGT GGTGTTGATA GCAAGGAAGC TCACTATCTG GCAAATCTTT	9540
ACGGTTCAAA TGCACCGAAA GTCTTTGCAC TTGCTCACAG CTTGGAACAA GCGCCAGGAC	9600

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CAGTTGACTT	CCTTCTTCGT	CGTACCAATC	ACATGCTCTT	TATGCGTGAT	AGCTTGGATA	9720
GTATCGTTGA	GCCAATTTTG	GATGAAATGG	GACGATTCTA	TGACTGGACA	GAAGAAGAAA	9780
AAGCAACTTA	CCGTGCTGAT	GTCGAAGCAG	CTCTCGCTAA	CAACGATTTA	GCAGAATTAA	9840
AAAATTAAGA	AAAAATAAAA	GAGGTGGAGG	GCAGCATTCC	TTGTGCCCCG	TCCCTTCTTT	9900
TTAATGGAGA	CAGAAAGATG	ATGAATGAAT	TATTTGGAGA	ATTTCTAGGG	ACTTTAATCC	9960
TGATTCTTCT	AGGAAATGGT	GTTGTTGCAG	GTGTGGTTCT	TCCTAAAACC	AAGAGCAATA	10020
GCTCAGGTTG	GATTGTGATT	ACTATGGGTT	GGGGGATTGC	AGTTGCGGTT	GCAGTCTTTG	10080
TATCTGGCAA	GCTCAGTCCA	GCTTATTTAA	ACCCAGCTGT	GACCATCGGT	GTGGCCTTAA	10140
AAGGTGGTTT	GCCTTGGGCT	TCCGTTTTGC	CTTATATCTT	AGCCCAGTTC	GCAGGGGCCA	10200
TGCTGGGTCA	GATTTTGTTT	TGGTTGCAAT	TCAAACCTCA	CTATGAGGCA	GAAGAAAATG	10260
CAGGCAATAT	CCTGGCAACC	TTCAGTACTG	GACCAGCCAT	CAAGGATACT	GTATCAAACCT	10320
TGATTAGCGA	AATCCTTGGA	ACTTTTGTTT	TGGTGTGAC	AATCTTTGCT	TTGGGTCTTT	10380
ACGACTTTCA	GGCAGGTATC	GGAACCTTTG	CAGTGGGAAC	TTTGATTGTC	GGTATCGGTC	10440
TATCACTAGG	TGGGACAACA	GGTTATGCCT	TGAACCCAGC	TCGTGACCTT	GGACCTCGTA	10500
TCATGCACAG	CATCTTGCCA	ATTCCAAACA	AGGGAGACGG	AGACTGGTCT	TACGCTTGGA	10560
TTCTGTGTGT	AGGCCCTGTT	ATCGGAGCAG	CCTTGGCAGT	GCTTGTATTG	TCACTTTTCT	10620
AGTTTATACT	CTTCGAAAAT	CAAATTCAAA	CCACGTCAGC	GTCGCCCTTAC	CGTACTCAAG	10680
TACAGCTTGC	GGCTAGCTTC	CTAGTTTGCT	CTTTGATTTT	CATTGAGTAT	TAGAAAACAA	10740
TTATGTTGAT	AGAGCTTGGG	CAAGAGCCCA	ATTTCAAGCA	AAAATGAAGT	AAATCTTCTC	10800
ATAATAAAAC	GCATCATATC	AAGCACGAAA	ATTCCACGAG	GTCAACTACA	GTCAGAAAGC	10860
TGAACAACAA	GCCAAAACGC	CCAAAAAAGG	CGGCAAAAAG	CAAGCACCTG	CAAGCAACGT	10920
GCCGAAATGG	TCAAATCCTG	ATTATGTCAA	CGAATTAGAC	CCAAAAATCG	TTGATATGCT	10980
AGTAGAATTT	CACAAGTCAC	AAGGCACTTT	GGAAACTCCC	GAGGCGCAAG	CAGAAATCGC	11040
CCAAAAACGT	GAAGAAATCG	AGCAAAGGAG	AGCTGAGCTT	GAGGGTAAAA	AACAAGAGCT	11100
TTTGAACCGC	TTGAACAAAT	AGAGTTTCGC	AAGTATTATG	CTTACAAATT	ACTTGAGCAA	11160
TTAACTAAAA	TATAAACCTT	GCCTTTATAT	CTAGGCAGGG	TTTATATTTT	AGAAATTCAC	11220
GTAGGTTGTT	ACGGTTTTTA	CATACCCAGT	ATAGTTTGAG	TTTCTATAGT	ATTCAGTGAT	11280
AACTTCCAT	TTTCTTTGAG	CAACATGGAT	ATAAGTACTT	GTTATGTAGT	ATGGATATGG	11340
GCTTTGTGAA	TCCAAGTAAG	ACTGATAAGC	TTGTATACCA	AAATATGCTC	CACCAATTAT	11400

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TGCACCCCAT GGACCCCCCA ATAAAGCACC TATCCTACCA ATCATATAAC TGATTCCAGC	11460
ACCAGTCATG AAGTTAGCGA ATGTGTTAGC TTGTTTATTC CCATGTATTG TGTGACGTA	11520
ATTCCAAACA TTAGGATCGT ATGATCTAAA AGATATATTT AGGTCGATTT CATTCTTTTG	11580
ATAAGCCATA TAAAATGCCC CATTGATATA GACGCCGTCA GCACGTCGTT CAATAGTGTC	11640
TACACTTCCA TCTGGATTGA CAACCTCAAG AACTTCATCG CTAAAAATAT TTAATTGCGT	11700
ATCTCCGAAC CGCACTGATG AGCCATTCTC AACTGAGCC TCACCAGATA CAACTTTAGA	11760
GTTTGCCGAT AAGCTATCAT CAGCAAAAAC AAACAAGCGA CGGGGAAATG CTAGACATAC	11820
AGAAAACAGA CATAACTAGC AAACACATGC ATTTAAACAT CTTAGACATA ACGGAACTC	11880
CTTTGTATTT TTGATTTTTT TCAACTTTTA TTATACAATA AAACCAAATA AAAAGAAAGC	11940
GGTAACAATA TGCTTAATGC GAAAATTTTT TATATATTTT TATGTTTGAT CGTTATCGAA	12000
ACTACAGGCT TGTGTTGTT GAAAAGAGGT CTCGAAATGG GTTATTTAGA CACAGAAGCT	12060
ATTATCCTCG CAGTTTTTTC ATTTGCTTTT TACAACCTAT GTTCATTTCG TTGGGTCTGC	12120
TCTACAATAA AAAACAATAA AAAATAAATA GACGTATTTT CAAAAAAAAC maAATGCATA	12180
TTTATATTAG CAAAACGACG ATTTAAATCG TCGTTTTTTT GTAGTACGAC GGGCATGTCC	12240
TATATCTGAG GTGTAAGTCC TCAGCCTGAC TATCGTGAGG TAGCAGGGAG AGGAAGGGAT	12300
AGCGAAATCG TGGCTCTACG AACAGGAACG TGATAGTAAG GCGTATATAG CGGATAAGGA	12360
GGCTTCAAAC TCTAAAGTCC AAAAAGGTAG TCGTAACCTA TATGTGTAAA TCACGAGAGT	12420
AATTGAATTC GGAATAAGGT TTGTGTGAAA AAGATAAATC TTTCTAGAGT CTAAAGACTC	12480
TGCGTCAGAT TTCCTATTTT CACTGTAACC TTTTAACGTC CTCATATCTT GTATAACGA	12540
GGAAAGATGT ACGACTTATC CCGTGAGGTT TCATGAGCGT GAAAGCGTAG TAACAACGAA	12600
TCATGAGAAG TCAGCCGAGC CCATAGTAGT GAGGAACTT CCGTAATGGA AGTGGAGCGA	12660
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(2) INFORMATION FOR SEQ ID NO: 135:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 5305 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 135:

CGCTAATCAC TACAATCATT TTATTGTACT TTTTCACTCT CAAGAAAAGC AAGAAGTATT	60
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916

CATTTTAGTT TCATTTAGTA TTATTTTGCA TACCTAAAAT ACAGTAAAAA ATCAGTCATC	120
TTGGTATGCT CCTGCTTTCA CTATTCAACA CGTTTTTGAC TTATACTAGG CTCATTTCCA	180
AAAGCATTAT ATAATAGTGA TATGAAACCA ACTAACTAA ACAAGAAATA TAAGCAATAA	240
AAATTCGTTT AAAAGATCTT ACTAAAGCTA ATACTAAATA AAAATAAAAG AGTAACTAG	300
GAAGTTTATT TCAAACAACC TAAAATACTG ATTTTCGGCT GAAGATAATA CTGGAGTGCA	360
AATTAATGGG GTTATAATAA ATAGCTGATA GCTTGTGTTG GTTTTGGATT TTTTAAGAGT	420
AGATGAGTAT TAAAACTATA AGGAGGACGA AGGTGGCTAA AAATTTAAAA TTAAAATTAG	480
CTCGGGTAGA GCGTGATTTA ACACAAGGTC AACTGGCAGA GGCTGTCGGG GTGACACGCC	540
AGACTATTGG TTTAATAGAG GCGGGAAAAT ACAATCCCAG TCTCTCGCTC TGCCAGTCTA	600
TTTGCAGATG TTTAGGGAAA ACCCTAGACC AACTATTTTG GGAGGAAGAA GATGAAAAAT	660
AGATTTTATT ATTCTCAATT ACTAGACGAA AGAGAAGAAC AACTGTTCAA TAAAGCGGGC	720
TCTGAAAGTT TCTATATCTG CATTGCTTTG TCGCTCCTAT CTTATATCAT TTCAGTATTA	780
GCACCAAGCC TTTTAAATTC TAATATGCTG CTAATCGTTA TCATCATAGG GACATTTTAC	840
TTTTTCAATC GTGCCCCTTA TCTGGGAGTG ACCTACTATG GTCGTTTTCA TTTTACGATT	900
TTGGGTGTTT TTTTCCTAAC CTTGGCTATT ACGGCTCTTT TGATGTTGCA GAATTATCAA	960
TTCAACATAG AAATTTATCA GCACAATCCT TTGAATTTTA AATACCTGTC TGCTTGGGTC	1020
ATTACTTATA TCATTTACCT TCCGTGGATC TTTATTTGCA ATCTTGGTCT TAAGAGCTAT	1080
GGCGAATGGG CTCAGAAAAA ATTTGAACAA GATATGGATG AATTGGAGAG TGGAGAATAG	1140
CTTGTTACTC TTTTCTCAAT CCAGCTAAAA TGTGATATAA TAGTACTAAT TTATTGGAAT	1200
ACATGAAAGT TCTTGAAAAT TTTCATGGGT TTCTAGCTAA GGAAGTAGGA AAAGTATGTA	1260
TCCAGATGAT AGTTTGACAT TGCACACGGA CTTGTACCAG ATCAACATGA TGCAGGTTTA	1320
CTTTGACCAA GGGATTACAA ATAAGAAGGC GGTCTTTGAG GTGTATTTCC GCCAACAGCC	1380
TTTTAAGAAC GGCTATGCGG TTTTTCAGG TTTAGAAAGA ATTGTGAACT ATCTTGAAGA	1440
CTTGCGTTTT TCAGATAGTG ATATAGCCTA TTTGGAGTCG CTTGGTTATC ATGGGGCGTT	1500
CTTGGATTAC CTTGCAATT TCAAGTTGGA GTTGACCGTT CGTTCTGCCC AAGAAGGGGA	1560
TTTGGTTTTT GCTAATGAAC CGATTGTGCA GGTGGAAGGA CCTCTAGCCC AATGTCAGTT	1620
GGTCGAAACG GCTCTTTTGA ACATCGTCAA CTACCAGACT TTGGTGGCGA CGAAGGCAGC	1680
TCGTATTCGT TCGGTTATCG AAGATGAACC CTTGATGGAG TTTGGGACAC GTCGGGCTCA	1740
AGAAATGGAT GCGGCCATCT GGGGAACACG CGCAGCTGTG ATTGGTGGCG CCAATGGAAC	1800
CAGCAACGTG CGTGCGGGTA AGCTCTTTGA CATTCCTGTT TTGGGAACCC ATGCCCATGC	1860

917

CTTGGTACAG GTTTATGGCA ATGACTATGA AGCTTTCAAG GCTTACGCTG CGACCCACAA	1920
AAATTGTGTC TTTCTTGTGG ATACCTATGA CACCCTTCGC ATCGGTGTAC CAGCTGCCAT	1980
TCAGGTGGCG CGTGAGCTGG GTGATCAGAT TAACTTTATG GGTGTGCGGA TTGACTCTGG	2040
GGATATTGCC TACATTTCTA AGAAAGTCCG TCAGCAACTG GATGAGGCTG GATTTACAGA	2100
GGCTAAGATT TATGCTTCTA ATGATCTAGA TGAAAATACC ATCCTTAACC TCAAGATGCA	2160
AAAGGCCAAG ATTGATGTCT GGGGTGTGGG TACCAAGCTG ATTACAGCCT ATGACCAGCC	2220
GGCTCTTGGG GCGGTTTACA AGATTGTTGC AATCGAAGAT GAAACTGGTC AGATGCGCAA	2280
TACGATTAAG CTGTCTAATA ATGCTGAAAA AGTTTCTACG CCAGGTAAGA AGCAGGTGTG	2340
GCGCATTACC AGTCGTGAAA AAGGCAAGTC AGAAGGCGAC TATATCACTT ATGATGGTGT	2400
GGATATTAGC GACATGACAG AAATCAAGAT GTTCCATCCG ACCTATACAT ACATCAAGAA	2460
GACGGTTCGT AATTTTGATG CCGTTCCTCT CTTGGTGGAT ATCTTCAAAG AAGGAATATT	2520
AGTTTACAAC TTGCCTAGTT TGA CTGACAT TCAGGATTAT GCGCGTAAGG AATTTGACAA	2580
GTTGTGGGAT GAGTATAAGC GTGTGCTCAA TCCGCAGCAC TATCCAGTGG ATTTGGCGCG	2640
TGATGTATGG CAAGATAAGA TGGACTTGAT TGATAAGATG CGCAAGGAAG CCCTTGGTGA	2700
AGGAGAAGAA GAATGAGTTT GCAAGAAACG ATTATCCAAG AGCTGGGTGT CAAACCAGTG	2760
ATTGATGCCC AGGAAGAAAT CCGTCGTTCT ATTGATTCTT TAAAAAGATA TCTGAAAAAA	2820
CATCCCTTCC TAAAAACCTT TGTACTAGGG ATTTCTGGGG GACAAGACTC AACCTTGGCA	2880
GGACGTTTGG CGCAATTAGC TATGGAAGAA CTGCGAGCTG AAACGGGAGA CGATAGCTAC	2940
AAATTATCG CTGTCCGCCT GCCATACGGA GTGCAAGCTG ATGAAGCAGA TGCTCAAAAA	3000
GCCCTAGCCT TCATCCAGCC AGATGTCAGC TTGGTTGTGA ATATCAAGGA ATCAGCTGAT	3060
GCCATGACAG CTGCAGTTGA AGCGACAGGT AGTCCTGTTT CAGACTTCAA CAAGGGGAAT	3120
ATCAAGGCAC GTTGCCGTAT GATTGCTCAG TATGCCCTTG CTGGTTCCCA TAGCGGAGCG	3180
GTCATTGGAA CAGACCACGC CGCGGAAAAT ATCACAGGTT TCTTTACCAA GTTTGGTGAC	3240
GGCGGTGCGG ATATTCTCCC TCTTTACCGC CTCAATAAAC GCCAAGGAAA ACAGCTCTTG	3300
CAGAACTTG GCGCAGAGCC AGCCCTTTAT GAAAAATCC CAACGGCAGA CCTAGAAGAA	3360
GATAAACCAG GCCTAGCTGA CGAAGTCGCA CTTGGAGTCA CCTACGCAGA GATTGACGAC	3420
TACCTAGAAG GCAAAACAAT CAGCCCAGAA GCTCAAGCGA CCATTGAAAA CTGGTGGCAC	3480
AAAGGCCAAC ACAAACGCCA CTTACCCATC ACCGTATTTG ATGACTTTTG GGAGTAAAAA	3540
GGTCCGGGGG ACCTTTTATG CTTCTTGCCC TGAAATTAAA AAGCAAGAAA AACCTCCACT	3600

918

GGAGGTTTT TC AGCCTCTCAT CTTGAAATAA GAAAGTGAGA GAAGGTCTGG GGGATCTTGA	3660
ACCCCGAGTT TAGAAATAAG AAAATGAGGC AGATTCAGTA ACTCGAAGAG TTCGATTTCA	3720
TCGTCTTACC CCTGCAACGA TGA CTAGGTT TGAAAAAGCT TGCTAGAGCG CATTTCAAAC	3780
CAGGCAGCAA CTGCGTCAAG AAATTAGAAG ACAAACTCGT TTTCTAGCTG TTAGTGAGTT	3840
GAGCCTTTTT ACTACGAGTA TAGAAATAAG GAAGTGAGGT AGCATCATGA AATCTATCGG	3900
TACGCAAATA TTACAGACAG AACGTTTGAT TTTAAGAAGA TTTGTGGAGA GTGATGCAGA	3960
AGCCATGTTT CAAAATTGGG CTTCATCCGC TGAGAATCTG ACCTATGTTA CCTGGGATCC	4020
CCATCCTGAT GTCGAAATCA CTCGAAACTC GATTTGCAAT TGGGTTGCTT CCTATACTAA	4080
TCTCAACTAT TATAAATGGG CCATTTGTCT AAAAGAAAAC CCAGAGCAAG TAATAGGAGA	4140
TATCAGCATT GTTAAGATAG ACGAGGCTGA TTTAAGCTGT GAAATTGGCT ATGTGTTAGG	4200
CAAGGCTTAC TGGGGAAATG GTATGATGAC AGAGACTTTG AAAGCTATCT TGGACTTTTG	4260
TTTTACTCAA GCAGGTTTT TC AAAAGGTCAG AGCACGTTAT GCCAGTCTCA ACCCAGCTTC	4320
AGGTCGTGTC ATGGAAAAGG CTGGAATGTC CTATCTACAA ACCATTGTTA ATGGTGTAGA	4380
GAGAAAAGGC TATCTTGCGG ATCTTATTTA TTATGGTATA AGTAGGGAAG AATGTTGAAT	4440
TCTATTTTCT GTTCTATCG AAGTCAACTA TTTATTGTAA ATATAATAAT TAGCATTCCA	4500
AGTTTATTG AACTTTAAA ATAGCATATT GATTAGTACA AGACAGATGT TCTAGTTCCT	4560
TCTTTAATCT GGTTAGTGT TAGTTAAAAA ATCGCTTTAA GCTTGTA ACT AAGAGGGAGC	4620
TAATCGACTA GATTCTCCAG CCGAACAGG GGTAAATGTAC TTTTATAGT GTAATCCTAG	4680
CTGTGTAA ATTTAAAATA GAATCCTCTA TCGAGTTAGG GAATTAAATT CAACCAATTT	4740
TATTCATGTT TTTCTATCA AATTATCTAA TATTTAAAATA GTCTCATTCT GATGAGAAAA	4800
CTATTCCTAA ATCATTCTA CCTCTCTCAA CTAGATGTAA CTTACAAAAC CCCTGACCTC	4860
ATGAGCCACT TTCTTCTCC TCATGAGGTC AGTTTACTT TCTGCTGTT CAGTATCGTT	4920
TTTCTCTGCT AGATTTCTCT AAAAGGGCAG ACTCCTCCCT TGGTGCGTCA CACGATTTTT	4980
TCATCTCGAC TGTTCTTTAA TGCATCATTA ACGACGCTTT TCTTCTAGGT GGTTCATAAG	5040
GAACAGGAAG ATTCAGGTTG ACTTTTCTAA TCCTAGAATA AAGTGCTGAA AACAATTCGG	5100
AATAGGCATA GAGACTAGAC AATTGAGGA GCTGCTTGCG TCCTGTTCGA ACACATTTTC	5160
CCACCACGTG AAGAAAAAGA TGGCGGAAGC GTTTGATTGT TAAAGTTTGG AAGTCACCTC	5220
CAGCTAGATG TTTGAGAAAA AGATAGAGAT TGTAGGCGAT ACAGCTCATC ATCATACGAA	5280
CTTCGTTTTT GATTAAGGTT GAACT	5305

(2) INFORMATION FOR SEQ ID NO: 136:

919

- (i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 3964 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 136:

TGGCAGCTCG TCGTCGTAAA GGACGCAAAG TTTTGGCTGC ATAATCCAAA CGAATTCTAT	60
CAAAAATCAG TAGGAACTCG AGTCTACTGA TTTTATTTT TGTA AAAAAG TTCAGTAGAT	120
GCAAATGGAT TCGGAAGCGA TGTACAGTA GATTGAACT AGAATAGTAC ACCTCTGTTT	180
CTAAACATT GTTAGAAATC GATTGACTG TCCTGATCGA TTTGTCCTGT TATTATTTA	240
TTTTACTATA AAGTTGAAGT AGGTGGAGAT GGTACAGCAA CAATCGTCTT TAAAGATGGT	300
TCAGCTATTA CAATTCCAGG AAATCAATTG GTAGCACAAG ATCCAAAAGC ACAAGATAGC	360
ACTAACTGA CTGCTGAAAA ATCAACTGTT AAAGCACCTG CTCAAAGAGT AGATGTAAAA	420
GATATACTC ATTTAACAGA TGAAGAAAA GTTAAGGTTG CTATTTTACA AGCAAATGGT	480
TCAGCATTAG ACGGAGCGAC AATCAATGTA GCTGGAGATG GTACAGCAAC AATCACATTC	540
CCAGATGGTT CAGTAGTGAC GATTCTAGGA AAAGATACAG TTCAACAATC TCGAAAGGT	600
GAATCTGTAA CTCAAGAAGC TACACCAGAG TATAAGCTAG AAAATACACC AGGTGGAGAT	660
AAGGGAGGCA ATACTGGAAG CTCAGATGCT AATGCGAATG AAGGCGGTGG TAGCCAGGCG	720
GGTGGATCAG CTCACACAGG TTCACAAAAC TCAGCTCAAT CACAAGCTTC TAAGCAATTA	780
GCTACTGAAA AAGAATCAGC TAAAAATGCC ATTGAAAAAG CAGCCAAGGA CAAGCAGGAT	840
GAAATCAAAG GCGCACCGCT TTCTGATAAA GAAAAAGCAG AACTTTTAGC AAGAGTGGA	900
GCAGAAAAAC AAGCAGCTCT CAAAGAGATT GAAAATGCGA AACTATGGA AGATGTGAAG	960
GAAGCAGAAA CGATTGGAGT GCAAGCCATT GCCATGGTTA CAGTTCCTAA GAGACCAGTG	1020
GCTCCTAATG CTGCTCCTAA GACAACAAGT GCACCGCAAG CAACTGCAGG AACAATGCAA	1080
GATGTTACCT ACCAGTCACC TGCTGGCAAA CAATTACCTA ACACAGGTTC AGCATCAAGT	1140
GCAGCACTTG CTAGTCTTGG TCTAGTGGTG GCAACAAGTG GTTTTGCTTT GCTAGGAAGA	1200
AAGACTAGAC GTAGAAAATA GAACAGCTAG AAAATTCTAT TCTCTACTTA AAGTTAGATT	1260
ATAAGGGGGA TTTTGAGAAG TCATCAATCC TAGTGATGGG TGAGAAAAGT GAGAACCCAA	1320
GATAATCACA TACTTTAGCT GAATAGGAAT ATTCTATCAA TGTAGCCAAT CTCTTCTGTC	1380
TCTAACTGTG GAATAGGAGA TGGGCAATAT CGGATAGAAA AGATAGCAGA ATAGCTCTCT	1440

920
ATTGAAGAGA GGAGGGGAAA CCGAAAAATT AGGTGCCCCCT CCTCTTTTTT GGTATAATAG 1500
AAGATAGAAA ACGAGGTTAG AAGAGATGAT TTTTGATACA CATAACACT TGAATGTAGA 1560
AGAATTTGCA GGTCTGTAGG CAGAAGAAAT TGCCTTGGCT GCTGAGATGG GTGTGACACA 1620
GATGAATATT GTTGGTTTTG ATAAACCGAC GATTGAGCAT GCCTTGGAGT TGGTAGATGA 1680
GTATGAGCAG CTCTATGCGA CTATTGGTTG GCATCCTACA GAAGCTGGTA CTTATACAGA 1740
GGAAGTTGAG GCTTACTTGT TGGATAAGTT AAAACATTCC AAGGTTGTGG CTTTAGGTGA 1800
AATTGGCTTA GATTACCATT GGATGACAGC GCCCAAAGAG GTGCAGGAGC AGGTTTTTCG 1860
CCGTCAGATT CAGCTATCTA AGGACTTGA TTTGCCTTTT GTTGTCCTATA CCCGTGATGC 1920
GCTGGAAGAT ACCTATGAGA TTATCAAGAG TGAGGGCGTT GGTCTCTGTG GTGGTATCAT 1980
GCATTCATTT TCAGGGACGC TTGAGTGGGC AGAGAAGTTT GTGGATCTTG GTATGACCAT 2040
TTCCTTCTCA GGAGTGGTGA CTTTAAAGAA GGCAACTGAC CTCCAAGAAG CAGCTAAAGA 2100
GTTACCTTTG GACAAGATGT TGGTGAAAC AGATGCGCCT TACTTAGCAC CTGTACCCAA 2160
GCGTGGTCGT GAAAATAAAA CAGCCTATAC TCGCTATGTG GTCGACTTTA TCGCTGACTT 2220
GCGTGGTATG ACGACAGAAG AGCTGGCGGT AGCAACGACT GCAAATGCAG AACGAATTTT 2280
TGGACTGGAC AGCAAGTAAT GAAAGAGAAA ATTTCTCAAG TTATCGTGGT TGAAGGGCGT 2340
GATGATACGG TCAATCTCAA ACGTTATTTT GATGTGGAGA CCTATGAGAC TCGAGGTTCT 2400
GCCATCAATG CTCAGGATAT AGAGCGGATT CAGCGCCTGC ACCAACGTCA TGGAGTCATT 2460
GTCTTTACAG ACCCAGATT TAATGGGGAA CGGATTCGGC GCATGATCAT GATGGTCATT 2520
CCAACAGTTC AGCATGCCTT TCTCAAGCGA GATGAAGCTG TTCCCAAGTC CAAGACCAAG 2580
GGGCGTTCTC TGGGAATTGA GCATGCCAGC TATGAAGACC TGAAAACGGC TCTAGCTCAA 2640
GTGACAGAAC AATTGGAACA TGAGAGTCAG TTTGACATTA GTCGTAGCGA TTTGATTCCG 2700
CTTGGTTTTT TAGCAGGGGC AGACAGCCGT AAGCGTAGAG AATATCTCGG AGAGACTCTC 2760
CGAATCGGCT ATTCCAACGG CAAGCAACTC CTCAAACGCC TAGAGTTGTT TGGGGTTACT 2820
TTGGCAGAAG TGGAAGAAGC TATGAAATCT TATGAGTAGG AAAGATGTAG CCGTTACAAT 2880
TTTTTAAGTT TCACAGTATT TTTGGAAGCA GGTAAGAAGAG GAGGCGTCTG ATGTTAATTG 2940
GTCAAAAAAT TAAAGAGATT CGGATAGAAA AAGGAATTAG TCGTCCAGAT TTTGTGGAG 3000
ATGAGCAAGA ACTGACAGTT CGTCAACTGT CGCGAATTGA AAGTGGAGCT TCGCAACCGA 3060
GTTTGCCCAA GTTAGACTAT ATTGCTCGCC GGCTAGGAGT TCCAGTTTAT AGCCTTATGC 3120
CGGATTTTTT AGCTCTTCCT TCTGCTTATT TAGAATTGAA ATACCAGATT TTACGTGAAC 3180
CAATCTATGG TAAAGAAGAG GAGTACGATA AGAAGGAAGC GTGTTTGGAA GAGATTTATA 3240

921

AAACATACTT TGATAATCTT CCTAAAGAAG AACAAATTAGC ATGTGAAGTA TTGCAGGCGT	3300
GTTTGGATAC TTCTAGAACT AGAAGGCCTG AATATGCAGA GTTAATACTT GAGGAACATA	3360
TGCCTCAGAT TATAGAAAAA GAAGCTTATT CAATAAATGA TATGTTGTTG ATTCGTTTGT	3420
TTTTTTATCA AATGCTCATT AGAAAAGATC TTGCCAAATT TATAAATCAA ATCGAAAAGC	3480
TAATGCTCTT TCTTTTGGAA CAGAAGAAGG TAACTCAAAT AGAGAATTAC TTTATAATTA	3540
GAGATACTCT TATTTTCAGGA ATGTGTTGTC TTGAAAAGGT AGGAGTAACT GATTGTTTTA	3600
ATGATTATCT ATCGTGTTTA CAAGAAATTA TGGATAAAAC TCAAGATTAT CAAAAGAAAC	3660
CTCTTGATTT TATGTTTTTG TGGAAGCAAG CATTAAGAGA AGAAAGAGAT TTTAGTTTAG	3720
CTGAATCATT TTATCAGTCT TCTAAAACAT TTGCGCAGCT AATTGGAGAT GAATTTCTAG	3780
TAAAGAAATT GACAGAGGAA TGGCAAGAGG ATGTCAAAAA ATATTTATAA ACATAGTGAA	3840
TCAGTGACAA AGATGTCCTT GTCCTCGTAT CAAAACAGTT CTAAAGTTCTG TCTTTAGGGA	3900
TGTTTTTTTA GATATAAGCT AAAAATGACA CGAAATGGTT AGATTTTAAG GACATTGATG	3960
TCCG	3964

(2) INFORMATION FOR SEQ ID NO: 137:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 12666 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 137:

TGAGACCGTT ATTTGTATTA GGGAAATGGG TATCTATTTT TAATGCTGTG GGGATTTTGA	60
TTGTTTCTAT TATCAAACC AAAAGCTTGT CAGGTATTGG AGCAGGATTG TTTAATCTAT	120
ATAACATTTT ATCTTATATA GGTGATTTAG TTAGTTTCAC TCGATTGATG GCATTAGGAT	180
TATCTGGAGC AAGTATAGCA TCAGCTTTCA ATTTAATTGT TGGTTTGTGTT CCGGGAATAT	240
TGGCTAAACT GACAATTGGA TTAGTATTAT TCATTCTTTT ACATGCCGATC AATATTTTTT	300
TATCGTTACT ATCAGGATAT GTTCATGGAG CACGTCTGAT ATTTGTTGAA TTTTTTGGTA	360
AGTTTATGA GGGTGGAGGA AAACCATTTT AACCTTTGAA GGCTTCTGAG AAATATATTA	420
AGGTTATTAC AAAGAATTAA TGGAGGATAT ATATAATGGA ACATTTAGCA ACTTATTTTT	480
CAACCTATGG AGGAGCTTTC TTCGCTGCAT TGGGAATTGT ATTGGCGGTT GGATTAAGCG	540
GTATGGGGTC TGCTTATGGA GTTGGTAAGG CTGGGCAATC TGCCGCAGCT TTAAGTAAAG	600

922

AACAGCCTGA AAAGTTTGCC TCAGCTTTGA TATTGCAATT ATTGCCCGGA ACACAAGGAT	660
TATATGGTTT TGTTATTGGA ATTTTAATTT GGTGCAATT AACTCCAGAA CTCCTTTAG	720
AAAAAGGCGT TGCTTATTC TTTGTAGCTC TTCCAATTGC TATTGTAGGA TACTTTTCAG	780
CTAAGCATCA AGGAAATGTA GCAGTAGCGG GAATGCAAAT CTTGGCTAAA AGACCAAAAG	840
AATTCATGAA GGGAGCAATT TTAGCTGCCA TGGTAGAAAC CTATGCAATT CTTGCTTTTG	900
TCGTATCATT CATTTTGACC CTTGCTGTAT AAGAAATAAA TTTGCAATTC AAAGGAGGTG	960
TCTAAATGAG CAATTTAGAA AACTTACGAG AGTCTGTTAT TGAACAAGCT CATGAAAAAG	1020
GGCGTATGAA ATTATTGGAT TCCAAAAAGA AGATTGATGA TGAATTTGAA ATGCAAAAGT	1080
CGCTCATTAT AAAGAAAAAA GAAGCTGAAC ATGAACGAAA GTTAAAAGAA TTGCAACAGA	1140
AATATCAAAT AATTTTCAA CAATTAAAA ATAAGGAACG CCAATCAACG TTAGTATCAA	1200
AACAGAAAAT ATTAAAAGAA CTTTTTCAAT CTGCTTTACT AGAAATGGAA TCTTGGAGTG	1260
CAGATAAAGA AATGGAGTTC ATCTATCGAA TTCTGGAACG ATATTCACAA CAAGAGGTCA	1320
TAGTAACCTT TGGGGAACGG ACTTTAGCTA AATTCAATTT GGAACAATTA GAGAAATTGA	1380
AATTCTCTTT TCCAAATTAT TTATTTAGTG AACACCTAT CTCAAATGAA TCAGGCTTAC	1440
TTATTTCAAT AGGTAAAATT GATGATAACT ATTTGTATAA AACATTAATT GGATCGATTT	1500
CTAAGGAAGA AAGTTCAAGT ATCGCAAATC AAATTTTAT CAATTAAGGA TGAAATTGGT	1560
TAATCCTTCT TAGAAATTTG GAGTATTCCA ATAAAATTAG AAAGGTATTT TATGGATACT	1620
AATCTTTTTT CAAAAATAAA TACGACGATT TCGGTAAAAG AAAACGATTT TATTACAGAA	1680
GAAAAATTC AAAAAATTAT ACAATCCAAA GATACGGAGA CATTTGGCATT TATCTTAGAA	1740
TCAACTCCCT ATCATTTATC GATTGACATC TTAGAAGATC CTAGTCAGAC AGAGATTTTCG	1800
CTAATGACAA AATTAGTCAA TGATTATAGA TGGGCCTATG CTGAAAGTCC GTCTGATATA	1860
ATTGTGACTT TATTTGCTTT ACGATATGTT TATCATAATA TCAAAGTTTT ATTAAAATCT	1920
AAGGCGGCAA TTAAGAAAGA TTTTCTAAA TTATTAATTC CAATAGGGAT TTTTGATATA	1980
GAAAGTTTAA AACATTTAGT TTCTTCCTTA CATTCAGATA CACTTCCTGA TTTTATGGTT	2040
CGTGAAGTAG AATCAATTTG GAATGAGTAT GAACTTTTA ATAATATTCG TGTAATTGAT	2100
GTCGGAGCTG ATCTAGCATA TTTTAAACAT CTGAACTTT TATCTAATGA GTTAGATGAG	2160
GTAATGTCTC AGGTATTGT CGAAATGATT GACTTTTATA ATATTATTAC TGTAACACGT	2220
GGTTTATCTC AAAATAAGAG TCATGGGGAT ATTTTACAAT TACTTTCAGA TGAAGGAAGT	2280
ATTTCTGCTA AAGAATTTAT ATACATTGTA GAAATCAAG AAATATTTGT GTGGTTCAAT	2340
AAAATAAATC CAAGCTTAGA TTCAATCTTT TCAACTTATG AATTGAAGAT GCAGGACGCA	2400

923

ACAATTTTCAT CTTCTGAGTT AGAATTTTTA TGTGATTAC TATTGTATAA AACTTTAGAT	2460
CAAGGAAGGT ACAATGTAGA GGGCCCGTTA GTTCTTGCTA GATATTTATT GGGATGTGAG	2520
TTTGAAGTAA AGAATCTCAG AATGATCATA TCAGCTCTTC AAAATACAAT TCCCTTTGAA	2580
TCAATAAAAG AAAGGATACG CCCACATTAT GGAAGCTAAT AAGTATAAAA TTGGCATAAT	2640
TGGTAGCCGT GATATTATTT TACCATTTAG CATGATTGGG TTTGATATAT TTCCTGCCTA	2700
CCAAGAACAA GAAGCTATAA ATACACTAAG AAAATTAGCT CAATCTGATT ATGGTGTGTCAT	2760
TTATATCACT GAAGACATTG CTTCAATGAT ATTAGATACA ATTCGCCATT ATGATTCCCA	2820
AGTTGTGCCT GCTATTATTT TATTACCGAC TCATAAACAA GGTTTAAATT TAGGATTAAA	2880
ACGTATAGAG GATAATCTAG AGAAAGCAGT AGGACACAAT ATTTTATAAT AATGTACAAA	2940
ATTGTCTGTA ATATTATTCT ATAATTTTTG GACTTAGTAA GGAGAATAAC TTTGACTCAA	3000
GGGAAGATTA TAAAAGTATC GGGACCTCTA GTTATTGCAT CAGGTATGCA GGAGGCTAAT	3060
ATTCAAGATA TTTGCCGTGT AGGTAAGCTA GGGTTAATCG GTGAAATTAT TGAAATGAGA	3120
AGAGATCAGG CATCTATCCA AGTCTATGAA GAAACATCTG GTCTTGGTCC GGGAGAACCT	3180
GTTGTTACAA CTGGAGAACC TCTCTCGGTT GAATTAGGGC CAGGATTGAT TTCTCAAATG	3240
TTTGATGGCA TACAACGCCC ATTAGATCGA TTTAAATTGG CTACTCATAA TGATTTTCTA	3300
GTTCGTGGGG TAGAAGTTCC AAGTTTGGAT AGAGATATTA AGTGGCATT TCGATTCCACT	3360
ATAGCAATTG GTCAAAAAGT GAGTACGGGT GATATTCTTG GAACTGTCAA GGAAACCGAG	3420
GTAGTTAATC ATAAAATTAT GGTTCCCTTAT GGAGTATCTG GAGAAGTCGT TTCTATTGCA	3480
TCTGGCGATT TTACAATTGA TGAAGTTGTA TATGAAATAA AAAAATTGGA CGGTAGTTTC	3540
TATAAAGGAA CGCTTATGCA AAAATGGCCT GTCCGCAAGG CGCGTCCTGT TTCTAAACGT	3600
TTAATTCCAG AAGAACCATT AATCACAGGT CAACGAGTTA TTGATGCATT CTTTCCAGTA	3660
ACCAAAGGGG GAGCTGCAGC AGTTCCTGGA CCGTTTGGAG CAGGAAAGAC AGTTGTACAA	3720
CACCAAGTAG CTAAATTTGC CAATGTTGAT ATTGTTATTT ATGTCGGTTG TGGAGAACGT	3780
GGAAATGAAA TGACGGATGT ACTGAATGAG TTTCTGAGT TGATTGACCC TAATACCGGA	3840
CAATCAATTA TGCAACGGAC AGTCTGATT GCTAATACTT CAAATATGCC TGTGCTGCT	3900
CGTGAGGCTT CAATTTATAC AGGAATTACC ATGGCTGAGT ATTTTCGTGA TATGGGCTAC	3960
TCTGTCGCCA TTATGGCTGA TTCAACTTCA CGTTGGGCAG AAGCGCTACG TGAAATGTCA	4020
GGACGTCTAG AAGAAATGCC TGGTGATGAG GGTATCCTG CTTATCTGGG AAGTCGTATC	4080
GCTGAATATT ATGAAAGAGC AGGACGTTCT CAGGTTCTAG GGCTTCCAGA ACGTGAAGGA	4140

924

ACGATTACTG CTATTGGAGC TGTATCGCCA CCTGGTGGAG ATATTTCAGA ACCAGTTACT	4200
CAAAACACTT TACGGATTGT GAAAGTTTTT TGGGGGCTTG ATGCTCCGTT GGCACAGCGA	4260
CGTCATTTTC CTGCAATTAA CTGGCTTACA TCTTATTCAC TATATAAACA CAGTGTGGGC	4320
ACTTATATAG ATGGTAAAGA GAAGACAGAT TGGAAATAGTA AAATAACTCG TGCGATGAAC	4380
TACTTACAAC GGAATCTAG TTTAGAGGAA ATTGTTTCGTC TTGTTGGAAT TGATTCTCTG	4440
TCTGATAATG AACGACTAAC GATGGAAATT GCTAAACAAA TTCGAGAAGA TTATTTGCAA	4500
CAGAACGCTT TTGATTCGGT AGATACATTC ACTTCGTTTG CAAAACAAGA AGCAATGCTA	4560
AGTAATATTC TCACTTTTGC TGATCAGGCA AATCATGCTT TAGAGTTGGG TTCTTACTTT	4620
ACAGAGATTA TGAAGGTAC CGTGGCAGTT CGAGACCGTA TGGCGAGAAG TAAATATGTT	4680
TCAGAAGATA GATTAGATGA AATCAAAATT ATATCAAATG AGATTACACA TCAAATTCAT	4740
TTGATATTAG AAACAGGAGG TCTATAAATG AGTGTATAA AAGAATACAG AACTGCTAGT	4800
GAAGTTGTTG GGCCTCTTAT GATTGTTGAA CAAGTAAATA ATGTGTCTTA CAATGAGTTA	4860
GTTGAAATTC AACTTCATAA TGGAGAAATT CGTCGTGGAC AAGTTTLAGA GATCCACGAA	4920
GATAAAGCAA TGGTTCAGCT TTTTGAAGGA TCTAGTGGA TAAATTTAGA AAAGTCTAAA	4980
ATTCGTTTTC CTGGTCATGC ATTAGAATTG GCTGTATCTG AGGATATGGT TGGTCGTATT	5040
TTTAATGGCA TGGGAAAACC AATTGATGGT GGACCAGATT TAATTCCAGA GAAATATTTA	5100
GATATTGATG GTCAAGCTAT TAATCCTGTA TCTAGAGATT ATCCAGATGA ATTTATTCAG	5160
ACAGGGATCT CCTCTATTGA TCATTTGAAT ACTCTTGTA GTGGTCAAAA ATTACCAGTA	5220
TTTTCAGGTT CGGGCTTACC TCATAATGAA TTAGCTGCTC AGATAGCAAG ACAAGCGACT	5280
GTTTTAAATT CTGATGAAAA TTTTGCGGTT GTATTTGCAG CAATGGGTAT TACTTTTGAA	5340
GAAGCTGAGT TTTTATGGA AGAACTCAGA AAAACAGGAG CGATCGATCG TTCGGTTTTA	5400
TTTATGAACT TGGCAAATGA TCCTGCAATT GAGCGTATTG CAACTCCCCG CATTGCTTTA	5460
ACTGCGGCAG AGTATCTAGC TTTTGAAAAA GATATGCACG TTCTAGTTAT CATGACGGAT	5520
ATGACTAACT ATTGTGAAGC GTTACGTGAA GTCTCGGCAG CTCGCCGTGA AGTTCCAGGG	5580
AGACGAGGCT ATCCGGGATA TTTATATACA AATTTATCAA CTCTATACGA AAGGGCTGGT	5640
CGCTTAGTTG GTAAAAAAGG TTCGGTGACA CAGATTCCTA TTTTAACAAT GCCAGAAGAT	5700
GACATAACAC ATCCAATTCC TGATTTAACT GGATACATTA CTGAAGGGCA AATTATTTTG	5760
TCGCATGAGT TGTATAATCA AGGTTATCGT CCACCAATCA ATGTTTTACC TTCTCTCTCT	5820
CGATTAAAAG ATAAGGGATC TGGAGAAGGT AAAACTCGTG GAGATCATGC TCCAACATG	5880
AATCAACTGT TTGCAGCCTA TGCCCAAGGG AAAAAGGTTG AAGAGTTAGC AGTAGTATTA	5940

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GGAGAATCGG CTTTATCTGA TGTAGATAAA TTGTATGTGA GGTTTACAAA GCGTTTTGAA	6000
GAAGAGTACA TAAACCAAGG ATTTTATAAA AATCGAAATA TAGAAGATAC GTTGAATCTT	6060
GGGTGGGAAT TACTATCAAT TCTTCCTAGA ACAGAGTTAA AACGTATCAA AGATGATTTG	6120
CTTGATAAAT ACTTACCTTT GGTAGAAGTT TAATCCGGAA ATGGAGTGAT TATCTATGGT	6180
ACGTTTGAAT GTAAAACCAA CTCGTATGGA ATTGAATAAC TTAAAGGAAC GTTTGACAAC	6240
AGCTGAACGT GGACATAAGT TATTAAAGGA TAAAAGAGAT GAATTGATGA GGCGATTTAT	6300
TTCTTTGATT CGTGAGAATA ATCAACTTCG GAAAGAAGTG GAAAGTTATC TAATTGATAA	6360
TCTAAAATCC TTTGCAGTTG CTAAATCATT AAAGAATTCT CAAATGGTGG AGGAATTATT	6420
TTCAATTCCA TCGAAAGAAA TTGAATTATT TGTTGAGAAA GAAATATCA TGAGTGTAAC	6480
AGTTCCTAGA ATGCATATGA ATATTACTTC TCAAAATGAG AACAGTGAAT ACAGCTATTT	6540
ATCTTCTAAT AGTGAAATGG ATGATGTATT TGCTACAATG AATAGTTTAA TTTATAAATT	6600
ACTAAGACTG GCAGAAGTTG AAAAAACGTG TCAGTTAATG GCTGATGAAA TAGAAAAAAC	6660
ACGTAGACGT GTAAATGGTT TAGAATACTC GATTATTCCA AACTTGTCGG AACTATTCA	6720
TTATATAGAA TTGAACTAG AGGAGGCAGA AAGAGCCAAT TTAGTTCGTA TTATGAAAGT	6780
GAAGTAGATC CTTTATTTAG ATTATTAATT AGATGAACAA ATATCAGCTT GGATAAGGCT	6840
TTAAGCCTTT CTAAGCTTTT TTTATTGACA GTATCAGGAT ATCTTTTCA AAATTTTGGT	6900
TTGTTAGATA ATGAAAATGT TTCTACTAAT CTAGATTTAG GATTAGTAAA TCGTAAATGT	6960
AATTATATAG AAAGTAAGCG CGTCATAACA AGGTATCTAT CATTCATGGA GCTCCTCCTG	7020
TATACTATTA GTAAAGTAAA ACTATTGGAG GATATTTTAA TGCCACAACC TATTGTTCTT	7080
GTAGAGATTC CACAATCTCG TCGTTTTGAT TCTAAAAAGA GAAATGATAT TCTGCTTAAA	7140
ATTCTGATTG GCAAGCTTGA AGTAAGTTTT TTTCAATCTC TCAATCTCGA AATGGTAGAA	7200
CAGCTTTTGG ATAAGGTGTT GCTCTATGAC AATTCATCTA TCTAGCCTAG GGGAGGTCTA	7260
TCTCGTGTGT GGGAAAACTG ATATGAGACA AGGAATCGAT TCACTGGCTT ATCTGGTTAA	7320
AACCCACTTT GAATTGGATC CTTTCTCCGG TCAAGTCTTT CTCTTTTGTG GTGGACGTAA	7380
AGACCGCTTT AAAGTCCTTT ACTGGGATGG TCAAGGATTT TGGCTACTAT ATAAACGCTT	7440
TGAGAACGGC AGATTGATTT GGCTAAGTAC AGAAAAGGAT GTCAAAGCTC TCACACCAGA	7500
ACAAGTAGAC TGGCTTATGA AGGGCTTTTC TATCACTCCA AAAATATAGT AGATTGAAAC	7560
TAGAATAGTA CACCTCTGCT TCTAAAACAT TGTTAGAAAT CGATTTTACT GTCCTGATCG	7620
ATTTGTCCTG TTCTTATTTT ATTTTACTAT AAATCCATCA GAAAGTCGTG ATTTCTATTG	7680

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AAATGAGGAC TTTCTTTTAA TACTCATCTG CTTTCAAAAA GCATTCTAGT CCATCTCCGA	7740
TTAACGATGG ACTTTATCAC CTCCTTCTCC AGTCCTTGTA TAACATCTTG GAGTTGATTC	7800
ATGACATCTT CCAAAGTTTA AAAGGCTTTA TTCTTAAATC CACGTTTACG AATCTCTTTC	7860
CACACTTGTT CAATGGGGTT CATCTCTGGT GTGTATGGAG GAATAAATGC AAAGCCAATA	7920
TTAGTCGGAA TCTTTAAGGT ACTTGATTTA TGCCATATAG CATTGTCCAT AACGAGTAAA	7980
AGATAATCAT CTGGATAAGC TTGTGAAATC TCCTATTCCT AAAGCCCCCTT TAGCGCATAA	8040
CTTTGGCTCA GCTTCTATTA TCGCTCACAC CATCCATCAG AAGTTTAATC TGAAGGTACC	8100
CAATTATCGC CAAGAAGAAG ATTGGGCTAG GATGGGTTTA CCAATCACAC GTAAGGAAAT	8160
CTCTAATTGG CATATCAAGG CGAGTCAATA CTATTTGGAG CCCCTTTATA ACCTCTTGCG	8220
AGAGAGACTA TTGACTCAGC CCTTACTTCA TGCGGATGAA ACTTCTTATA GGGTGCTAGA	8280
GAGTGATAGT CAGCTGACTT ACTATTGGAC TTTTGTGCA GGTAAAGCAG AGAAACAAGG	8340
GATTACGCTT TACCACCATG ATCAGTGTCG AAGTGTTTCA GTAGTACAAG AATTCCTAGG	8400
AGATTATTCT GGCTATGTGC ATTGTGATAT TTTGCGGCAG TAACTTAGGA CTTTAGTCCT	8460
CTAGTTCTGC CTATGCGATA GCAGTCCAAG GTTTAGGAGC AAGGCGACGC TAAGCTTGGT	8520
AAACTTCGAA CCGCTCGTCT GCTTATCGTC AACTGGAAGA AGCTGAACTT GTTGGATGTT	8580
GGGCGCATGT GAGAAGGAAG TTTTGTGAAG CGCCCCCCA AGCAAGCGGA TAAATCATCC	8640
TTAGGAGCTA AAGGTTTAGC TTATTGTGAT CAGTTATTTT CCTTGGAAG AGACTGGGAG	8700
GCTTTGCCAG CTGATGAACG ACTACAGAAA CGTCAAGAAC ATCTCCAGCC CTTAATGGAA	8760
GACTTCTTTG CTTAGTGCCG GCGTCAGTCA GTTTTAGCAG GTTCAAACT AGGAAGGGCA	8820
ATTGAATACA GCCTCAAGTA TGAAGAAACC TTAAAGACCA TTTTGAAAGA CGGACATCTG	8880
GTCCTTTCCA ATAATCTAGC TGAACGCGCC ATTAAATCAT TGGTTATGGG ACGGAGTAAA	8940
AGAGTCCAGT GGA CTCTTTT AGCCTAAGCT CAGTTTAAAA AAGCGAGGGT GGTATTTTC	9000
TCAAAGTTTT GAAGGAGCTA AAGCAAGAGC TATTATTATG AGTTTGTGG AACAGCTAA	9060
ACGTCATCAA TTAAATAGCG AGAAATATCT ATCCTATCTT CTAGAATGTC TTCCAAACGA	9120
GGAAACTCTC GTAAACAAAG AGGTTTGTAGA GGCTTATTTA CCATGGACTA AAGTTGTACA	9180
AGAAAAGTGC AAATAAGAAA TCTCCAGATT AGGAACTATC CGTGAGTTCT CCAGTCTGGA	9240
GATTTTTCAT TAGACTTCCT GCGAAACAAA ATATGGTATA ATAGTTCTAT GAATGATGAA	9300
GCAAGTAAAC AACTAACCGA TGCACGATTT AAGCGTCTTG TTGGTGTTC ACGCAGACT	9360
TTTGAAGAGA TGTTAGCTGT ATTAAAAACA GCTTATCAAC TTAAACACGC AAAAGGTGGA	9420
CGAAAACCTA AATTAAGTCT AGAAGACCTT CTTATGGCCA CTCTTCAATA TGTGCGAGAA	9480

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TATCGAACTT ATGAACAAAT TGCGGCTGTT TTTGGTATTC ACGAAAGCAA CTTAATCCGT	9540
CGGAGCCAAT GGGTTGAAGT AACTCTTGTT CAAAGTGGTG TTACGATTTT AAGAACTCCT	9600
CTCAGTTCTG AGGACACGGT AATGATTGAT GCGACGGAAG TAAAAATCAA TCGCCCTAAA	9660
AAAAGAATTA GCGAATTATT CTGGTAAAAA GAAATTTTAC GCTATGAAGG CTCAAGCGAT	9720
TGTCACAAGT CAAGGGAGAA TTGTTTCTTT GGATATCACT GTGAACTATT GTCATGATAT	9780
GAAGTTGTTT AAAATGAGTC GCAGAAATAT CAGACAAGCT GGTAAAATCT TGGCTGACAG	9840
TGGTTATCAA GGGCTCATGA AGATATATCC TCAAGCACAA ACTTCACGTA AATCCAGCAA	9900
ACTCAAACCG CTAACAATTG AAGATAAAGT CTATAACCAT GCGCTATCTA AGGAGAGAAG	9960
CAAGGTTGAG AACATCTTTG CCAAAGTAAA AACGTTTAAA ATGATTTCAA CAACCTATCG	10020
AAATCATCTA AACGCTTCGG ATTACGAATG AATTTGATTG CTGGTATTAT CAATCATGAA	10080
CTAGGATTCT AGTTTTGCAG GAAGTCTATT ATCAAAAATA CCATCAAGAT TATATAAGAT	10140
TGATACAGGA AAAGTTTTAT TTGATGGTGT AAATATTAAT CAAATAGATA AAAAAATATT	10200
AAGTCAAAAT TTAGGAGTAG TTCCACAGGA TTCATTTTTA TTGAACCGAA GTATTCTTGA	10260
TAATATAACT TTAAAGCACG AAGTTACTTC ACAAAGATA GAGGAAGTTT GTAAAGCACT	10320
TCAAATCTAT GATGAAATCA TGGCTATGCC GATGAAATTT AATACTATCA TCTCAGAGAT	10380
GGGGTCAAAT ATTTGAGTG GGCAAAGGCA ACGGATAGCA CTGGCACGTG CATTAATAAA	10440
TAATCCTAGT ATTGTAATTT TAGATGAAGC AACTAGTGCA TTAGACACTA TTAATGAGGA	10500
AAGAATAACA AAGTATATAC AAAGTCAGGG CTGTACTCAA ATAATTGTAG CTCATAGATT	10560
GTCAACGATT AAGGATGCGG ATGTTATTTT TGTAATGAAA GGTGGTAAGA TTGTTGAGTC	10620
AGGAAATCAT AAGTACTTAA TGGATCTTGG TGGAGAGTAC TACAGCTTAT ATACAAAAG	10680
GAAATGAGGT GTAAAGAAAA TGAAGAAAGA AAATGAATAT GTAATTTTAA CAACAGCCTC	10740
ACTAGGGGTG ATGATTGGAA TAGTGTTTGC AATTTTTTTA GATTTTCCAG TTGAATATGG	10800
TATTTCTTTA GGCTTGTTGA ATGGAATAGT ATTGGGTTTCG CTGATTGTTT AAAAAACAA	10860
TAAGAATTAA GCATAATTTT TTGCTGTAAA CTAAGGAGTA GAGATGGCTA TAGTTGAAAT	10920
TATAAATCTA AAAAAAGCT TTAAAGATAT TGAAGTTATT CATAACACTT AAATAATAGA	10980
GCAACTACAG TAGTAGCTTA AAAACATGAT TAAATCGCTA TTCTTAGGAG TAGCGGTTTT	11040
TCTTTTGTG TAATACTCTT TGAAATCTC TTCAAACCAC GTCAGCTTTG CTTTACCGTA	11100
CTCAAGTACA GCCTGCGGCT CGCTTCCTAG TTTGCTCTTT GATTTTCATT GAGTATAAAA	11160
AGGGTCAAGT AAGTATAGTA AATTGAAATA AGATATGAAC AAATCGATTA GAAAAGTCAA	11220

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ATTAATTTCT AGAAATATGT TAGAAATTGG TTTGAATTCC GCAATCAATT TGTTCAAGTTT	11280
TTATTTTCATT TCATTTTATT TAATTAGATT TTCCAATTTT TTAATTCAAG CTAAAAATCC	11340
CCAATCGTAG TGATTGAGGA TTGAGTAAAT AAATCTTAAA CAATACCTTG TGCAATCATG	11400
GCATTTGCTA CATTTTCAA GGCAGCAATG TTAGCTCCTG CAAGGTAGTC TTTATCAAGA	11460
CCGTATGTTT CTGAAGTCGT TTTAGCTGTG TTGAAGATGT TTGTCATGAT GTCTTTGAGA	11520
CGGCCATCAA CTTCTTCACG AGTCCATGAG AGGCGAAGAC TGTTTTGGCT CATTTCAAGA	11580
GCTGAAACGG CTACACCACC AGCGTTGGCA GCTTTTGCAG GTCCGTAGAA GATACCATTT	11640
TCTTTGTAAA CTTTGATGGC ATCAAGGTCG CTCGGCATGT TGGCACCTTC AGATACACAG	11700
ATAACGCCTT GAGCAACCAA ACGTTTAGCT GCTTCACCGT TGATTTCTGT TTGAGTGGCA	11760
CATGGAAGAG CAATGTCATA GTTCCAGCG TAAGTCCATA CAGTACCTTC GTGGTAGGTT	11820
GCAGTTGCTT TTTCAAGCTGC AACTCAGTC AAACGAGCAC GACGTTTTTC TTTAACATCA	11880
ACCAAAAGAT CGAAGTCGAT ACCATTTTCA TCGATGACAT AACCATTTGA GTCAGAAACA	11940
GAAATAACAG TTGCACCGAG TTCAGTTGCT TTTTGAAGAG CATATTGAGC AACGTTACCA	12000
GAACCTGAAA TAACGACTTT CTTACCAGCA AAGCTGTTAC CGTTAGCTTT GAGCATTTCT	12060
TCAGTATAGT AAACCAAACC GTAACCAGTT GCTTCTGGAC GAATCAAGCT ACCACCAAAT	12120
CCAAGAGGTT TACCAGTCAA GACACCAGCA TCAAATTGGT TAAGACGTTT GTATTGACCG	12180
TAAAGGTAAC CAATTTACG TCCACCAACA CCGATATCAC CAGCAGGTAC GTCAAGTGAT	12240
GGTCCGATGT GTTTTGGCAA TTCAGTCATG AAGCTTTGGC AGAAGCGCAT CACTTCAGCA	12300
TCTGTTTTAC CTTTAGGATC GAAGTCTGAT CCACCTTTAC CTCCACCGAT AGGAAGTCCA	12360
GTCAAGACAT TTTTAAAGAT TTGTTCAAAT CCGAGGAATT TCAAGATCCC TTGGTTTACA	12420
GTTGGGTGGA AACGAAGTCC ACCTTTGTAT GGTCCAACAG CTGAGTTGAA TTGAACACGG	12480
TAACCACGGT TTAATTGAAT TTTCCATCA CCGTCAACCC AAGGAACACG GAAAGAAACC	12540
ACGCGCTCAG GCTCAGTAAT ACGTGCCAAG ATATTTTCTT CGATATACTC AGGGTGTTTT	12600
TCAAATACAG GTTCTAAAGT GTTGAAAAAT TCTTCAACAG CTTGGAGGAA TTCAGCCTCG	12660
TGCCGG	12666

(2) INFORMATION FOR SEQ ID NO: 138:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 3083 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

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(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 138:

AGCAACTGTT GTGAACCAAT TCCGATAAAT TCCAAGAATT GGTAAATAGA GCCATTTTGA	60
CCAAAAATCC CGATAAAAGC ATAGGCTTTA AGGAGCAAAT TGATCCAGGT AGGAAGGATA	120
ATCAGCATGA GCCAGAGTTG ACGGTGTTTG AGACGGGTCA AAAAGAGGGC CGTCGGATAA	180
CTGATAAGCA GTGCCACAAA GGTCACAATG CCTGCATAAA GCACTGAGTT GAAACTCATT	240
TTAAGATAGG TCAAGTTTGT TGACGCAAAG TAAGATTTGT AATTTTCTAA ACTGAACTGG	300
CCTTCGATGT TGAAAAAGGA TTGACCGAAA ATCAAGACCA AGGGTGCCAA TACAAAGAGC	360
GCAATCCAAA GCATGTAGGG TACTACAAAG AGTTTAGAGC TTGTTTCTT CATCTCTTTC	420
CTCCTCGATT GCATTGATCA AACCTGCTTC TTGCTCTTCG ATTTCTACGT ACTCCTCAAT	480
ACGAGCATCG AACTCTTCTT CGGTTTCATT GAGACGCATG ATGTGGATGT CTTCTGGTTC	540
AAAGTCCAGA CCGATTTCTT CACCCACGAT AGCCTTACGG GTTGAGTGGA TCATCCATTC	600
ATTCCAAGT TCGTCATAGG CGATAATTTT ATAATGAACT CCACGGAAAA GCTGGGTATC	660
GACCTTAACT TGGAGCTTGC CTTCTTCAGG AAGGGTAATG CGCAAGTCCT CTGGACGAAT	720
AACGACCTCA ACAGGTTTAT TTGGCTTCAT CCCACCATCA ACCGCTTCAA AGCGTTTGCC	780
GTTAAATTCG ACCAAGTAGT CCTCAATCAT GGTACCTGGC AAGATGTTTG ACTCCCCGAT	840
AAAGGTGGCA ACAAAGTGGT TGATTTGGCTC ATCGTAGATG TCCACAGGGG TTCCAGACTG	900
GACAATCTCG CCATCATTCA TAACGAAAAT CCAGTCACTC ATGGCAAGAG CTTCTTCCTG	960
ATCGTGAGTG ACAAAGACAA AGGTAATGCC CAATCGTTGT TGTAATTCAC GCAATTCGTA	1020
CTGCATGTCT GTTCTCAATT TCAAGTCCAG CGCTGATAAA GGCTCGTCCA ACAAGACCAC	1080
ACGGGGTTGG TTGATGATAG CACGGGCGAT GGCCACACGC TGACGTTGTC CTCCAGAAAG	1140
TTTGCGGATG GAACGTTTTT CATAACCTTC CAACTGAACC ATCTTGAGAA CTTCCGCTAC	1200
ACGCTGCTCG ATTTCTTTCT TATCAATTTT ACGCAAGCGA AGTGGAAGG CAACATTTTC	1260
AAACACATTC ATATGTGGGA ACAAGGCATA GGATTGGAAG ACGGTATGTA CGTCGCGCTT	1320
GTTGGTTGGA ATATCATGTA TACGAACACC GTCTAGCATG ATATCTCCTG TCGTCGCATC	1380
CAGTAAACCT GCAATAATGT TTAGGATAGT TGATTTCCCC GAACCAGATG CACCTAGAAG	1440
GGTGTAGAAT TTCCCTTCTT CCAACTCAAA GTTGATGTCT TTGAGAACCT TGGTGTGCT	1500
GTCTTCAAAA ACTTTAGAGA CGTTTTTGAA TTCGATAATT GGCTTTTTC AATTGGCATAA	1560
ATTCCTTCTT TTTCATAGAT TAACCGATCG GGGCTCTGTC AGGTCCCCAC TACCTCTTGC	1620
AGGGAGTAAA ACCACCTGCA TACATCTTCG CTACCGATAG GCTTTCACCC AAGATCCGGA	1680

930

CTTCTCTTTC AAGCGTAATA CCTGAGTGTT CCTTGACTTT TTCGATAACC GATTGGATCA	1740
AGTCCTCGTA GTCTTTGGCC GTTCCATCTG CGACATTGAT CATAAATCCT GCATGCTTTT	1800
CTGACACTTC TACGCCACCG ATACGATAGC CTTTCAAGCC AGCTTCTGAA ATTAAGTGAC	1860
CTGCAAAATG CCCGACTGGA CGCTTAAAGA CCGAGCCACA AGATGGGTAT TCCAAAGGTT	1920
GCTTGAGTTC ACGTAGGTGC GTCAAGCGGT CCATTTCCTG CTTGATAACC TGATGGGTTC	1980
CTGGAGCTAG GGCAAATTTA ACTGACAAGA CAACTGCACC AGACTCCTGA ATAGCTGAAT	2040
GACGGTAACC AAAAGCCAAG TCTTTAGCAG ACAGGGTTTC GATTTCTCCA TCCTTGGTCA	2100
AGACCTTACA AGACTGCAAG ATGTGAGCAA TCTCGCCACC ATAGGCACCC GCATTCATAA	2150
AGACAGCACC GCCAACGCTT CCTGGAATAC CACAAGCAAA CTCAAAGCCA GTTAAACTAT	2220
GACGGAGGGC AATGCGAGTT GTTTCAATCA AGTTAGCCCC AGCTTCTGCT TCAATGGTAT	2280
AGCCATCAAC AGAAACGTTA TTGAGCTTGT CACACAAGAT GACAAATCCA CGAATCCCAC	2340
CATCACGAAC GATGATATTG CTTGCATTGC CAAGAACCAT CCAAGGGATA TTTTCTTGGT	2400
TGGCAAATTT CACAACGCGA GCCAACTCAA AACGATTTTCG TGGAAAGACC AAATAATCAG	2460
CCTCTCCACC TACTTTTGTA TAACTATAGC TATGCAAGGG TTCCTTAAAA CGGATATCAA	2520
TTCTTCTAA GATTTCAAGC ATTTTCTC TTACAGACAT GTCACCTTC CTTTTACAAA	2580
ATTCAATCCA TTATACCATT TTTAGAGACA TTTGACGACC ATAAAAATAC CTTGTTTGGG	2640
TTTTGCATAA GAAAAAGAGG TCCCCCCTT TTTATGATTT TTTACAAAAG ATTTCTTGG	2700
TTCCATAGGC GACCAGAACG AGCTCCAGTG CTAGAATCAC TTCAACCAAG ACTGGATTTG	2760
TCAACCAGCC TACTTGAAA AGAGATGGTG CCAGATCAAA GAAGGCATGC AAGCCATAGG	2820
CTGCTAGGAG ATAAATCCAT TTCTTCTGGC GAACAGCTTG GTAAACCCAA ACTGTCAAAA	2880
GTAATTGGAA ACCAAGCGCC AAGATTCGCT CAAAACCAAG CAAATAAATC TGCCAGACCG	2940
AAAGTGACTG AATGGTTTTT AACATATTTT CAGACAGTAA TTGCATAACC TGTGGATTC	3000
GAGTTTGAAC TGCCGAAAGA ACAATGTAAA GATTGAGTAA ACTAGTAAGG CCTAGAAAAA	3060
TCAACTCCAA GCCACCATGC CCC	3083

(2) INFORMATION FOR SEQ ID NO: 139:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 15363 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 139:

931

CCGGAGGATA TTGACCACCA CCAAAGCAG GGGGAAAATC GAAATCAACC AATAGTAGGC	60
TACTGCGACA CTGGTCAACT CACTATCTGA TGCTTGATAA TAATGCAAAA AAGCTTTTAA	120
TAAAGGTTTG TCTATCAGCT CTTTCCACCA CTTTTTCATG TCATACTCCT TCACTTATAA	180
TCTTATACTC AATGAAAATC AAAGAGCAAA CTAGAAAGCT AGCCGCAAGC TGCTCAAAAC	240
ACTGTTTTGA GGTTGTAGAT AAGACTGACG AAGTCGATCA CATACTACG GTAAGGCGAC	300
GCTGACGTGG TTTGAAGAGA TTTTCGAAGA GTATTAAC TAATTCTCTT ACCAATTCCA	360
CCATATCATA CGGTAGGGTA TTGGCAGCTT CCTTCAAGGA ATAGTTCTCT AAGTTATTTA	420
CATTTTGTCTG TAATTTCTTG GCATACTTAG TCGTAATCAA TCGTTTTTCT TCGTATTCGA	480
AAATCAACTT GCGCTCCAGA TAATAGCCTC TCAGCATTTT ATCGATATTG TTGGGTTTGA	540
CACGATTGAT AACCCGTTCTG ACAAAGGCAC CACTGCTGAT AATAGCTGTT TCTCGAAGAC	600
GAGACTCCTG CATAAACTA ATCAAAGAGC GTCTGTAGAC TCCCTTCAGG TTTTCCAAAC	660
TTTCAATAAT CATCTCTGTA TTGGCAAGAT AGAGCTCTGC AATTTGGTCA TAATCAAGAG	720
CACGGAGACG GCTTTGCTCC TTGTTCTTCC AGCTACGGAA GGTCTTTCCG AGAGTAAAAA	780
CTTCATGAAG GAGAAAACGT AAAATCCTCA AGGAAACAAG AAAATAATAG GTCAGTCTTG	840
AGGCAAGTTT ACGATTGATT CCTTGTTCTA TATTTTTCAG ATAACGTTGG TAAACTCGGT	900
AAGCACGATT GCTAATGTTT CCTTCTTCAT AGGCCTGTTT CAAACCATCA CTTTCAATAC	960
TAAGAATCAA GAGTTTCAAA GCAGCCCAGT CTTCTTGATC ATCCTGGTTT TCTTGGCTTA	1020
AAATGAGATT TTCAATACGT CCATGATAAT TGTCATAGC CGCATAGAGG GGAAGTTTAT	1080
TTCTGGTGTC TTCCAACCTT TTTTCCAAC CTAGCGTTAC TTCATTCAAA ATGGCGATAT	1140
GCATAAGATA ATCCTTGCTT TCTTCTCTT CATCAGAAAG ATGAGGCAAG ACCAAGAGAC	1200
CTGTTAAAAA GCTAACAAGC GTCACACCTG CAACAAGGAA AAGCAAAAGA GGATACTCCT	1260
GTTCTAGATT ACTTGGTATC AAGAGAATCG TAGCAATCGA CACCGTTCCC TTAACACCTG	1320
AAAAGGTCAA GAGAAACATG TCCTTCATAT ACTTATTTAG CTTTTTCTTG AGGCGTCGGG	1380
TTCTATAGGC ATAATAGCCA TAGATCATAA TAAAACGAAT GACAAAAAGG ACAAAGGTAA	1440
GGGCGATAAG AGATAGCAAT AAAAGTAGAG GATTATAGAT TGGATTGGTC AAGATAGGTT	1500
CTGCTATCAT TTCCAACCTC ATCCCTAAAA TCACAAAGAC AGAACCGTTG AGCATAAAGG	1560
TCACTGTATG CCAGACCGTC TCGGTCACCG TATCCACTTG GGCTTCGAGG AGCGTGATTT	1620
TCTTGAAGCG ACTTGCCTTT AAAATTCCAG CAACTACGAC GGCAATAATA CCTGAAACAT	1680
GAACTTCTTC TGCCAGAAAG AAGGTCCTA GAGGCAAACT CAATTCTAAT AAAAGTTCAC	1740

932

TGGCAATATC CGTTGCGCGC ACACCTAGCA AGAAGGTATG GAGGAAGCGG TTGGTCATGG	1800
CTGTTAAAAA TCCAATTAAA AAACCGCCTA GGATTGAAAA GATGAGCGAA CTGCTAGCTT	1860
GCCCCAGAGA AAAAGCTCCA GTTGTCGAAG CTGTCAAAGC TACCTGAAAA GCCACCAAAC	1920
CAGAAGCATC ATTCAAGAGT CCTTCGCCCT TAAGAATATT GGACACGCGC TTAGGAAAGC	1980
TAAAACGCTC CGAAAGAGAG GCAAAGGCCA CCAAGTCCGT AGGACCAAGG GCTGCCCCAA	2040
CAGCCAAGCA AGCTGCCAAG GGAAGGCTGA ACCAAAGAAG ATGGGCCAAG CCACCCAAAC	2100
TCAGGGTCGA GATAAAAATC ACTGGAAATA TGAGATAAAC AATGATTTCG CAGTGTTTTA	2160
AAATAGCCGT AACATCTGCT TCTTCAGCCT CTCGGAAAAG CAAGGGTCCG ATAACCAGTG	2220
CCAAAAACAA CTCCGTATTA AGGTGAAAGT CAGTATTGGG TAAAAAGAGA CCAATCACAA	2280
TTCCCAAAAG AATTTGCACC AAAGGGAGAG GCAAAAAGGG CAGGAGCTTA TTGGTTGTAC	2340
TTGAGACAAT CAAAACCAGT AAAAATAGGA TGAGGTAAAT CAGTAATTCC ACGCACGTCC	2400
TCCTTAATCT TTTTACAAC AGGATTCAAA TATCTCCTTC TGCTCTTTGA TTTTGTGTC	2460
AATCTTGAA CAGTCTTTGT GCTCAATTTT TCTCTGGCAC CGTTCCATTT CAAGAGCAAC	2520
TAATTTTTTC TTGATTTAA GCATTTTTT GTCATATGC GCTTGGTCTA GCACGCCCAT	2580
CGCTCGTTCG TGGTGGGTTG ATTCAACAAA ATTCTGGCGC ATGGCATCCA GCTTTTCGTG	2640
TAAGTATTGT TTATCCATGT CTGTATCTCT CTAATTTTTT AATCATCACT AAAACGGCG	2700
GGTTGTTGAC TTGGTTTAAA GTTCGGTAAA TGGCAGCTGT GTACTCTTGT TGGTTCAACT	2760
GGATCACAAA ATCCAAGACA GCATCTCTCT CGAGATCGCC TCCTTCATGA CCATAGTAAA	2820
TCATAATAGC AATTCGTCCA CCTTTGACAA GTAAGCCACA TAGCTTTTCT AATGCCTCAA	2880
TCGTTGTCTG CGGTCGGGTG ATGACAGACT TATCAGCTGC CGGCAAATAG CCCAGATTAA	2940
AAATCCCTGC CTTAGCTTTT ATCACAACT GGTCCAGTGT CTCATGGCCT TGCAAGATTA	3000
ACTGGGCATT TGTCAAGTCA GCCTGATGCA AACGCTCTTG GGTCTTTTCC AAGGCTTGCT	3060
TCTGAATATC AAAGGCATAG ACTTGCTTGG CTAGCTTGGC TAAAAAAGC GTGTCATGAC	3120
CATTTCCCAT AGTCGCATCC ACTACGACAT CCTCTTTTGT CACGACCTCA GCCAAAAAT	3180
CATGTGCCAT CTCAAGTGGT CTTTTCAATT TCAAACCTCT GTTTTACAGC CTTGCATCCT	3240
TGAACACTTC CACGACGTCG CATCTCCATC TCAATGCTGT TGAGGACTTC CCATTTATTG	3300
AGGCTCCACA TAGGACCAAG CAGCATATCC CTAGGCGCAT CTCCTGTAAT TCGATGGATG	3360
ACGATATGTT TGGGAATAAT TTCCAGTTGG TCACAGATGA CCCTGACATA TTCGTCCTGA	3420
CTCATCAATT GTAAACGCCC CTCATGGTAA TCTCGTTGCA TACGAGTATT TGTCATAAGA	3480
TGGAGCAAAT GCAGTTTAAT CCCTTGAATA TCGTTATCCG TGACACAACG GCGGACATTT	3540

TCAACCATCA	TCTCATGGGT	TTCACCAGGC	AAACCATTGA	TCAAATGGGA	AACAATCTCA	3600
ATTTTGGGAT	ACTTTCTCAA	ACGCTTGACC	GTTTCCACCT	ACAATTCATA	AGAATGCGCA	3660
CGGTTAATCA	GGTCAGAGGT	TGCTTCATAA	GTAGTTTGCA	AGCCCAATTC	AACCGTCACA	3720
TGCATGCACT	CCGATAACTC	AGCCAAATAT	TCGATGGTTT	CGTCTGGTAA	ACAGTCTGGG	3780
CGCGTTCCAA	TATTGATTCC	TACCACACCT	GGCTCATTGA	TAGCCTGTTC	ATAACGCTCT	3840
CGAATAACTT	CCACCTTTTC	ATGGGTGTTG	GTAAAATTTT	GAAAATAAAC	CAGATACTTC	3900
CGAACATCCG	GCCACTTGCG	GTGCATAAAG	TCAATTTCCCT	TATAAAATTG	CTCACGGATA	3960
GGCGCATCCG	GTGCCACAAT	GGCATCTCCA	GAACCAGAAA	CCGTACAAAA	AGTACAGCCC	4020
CCATGAGCCA	CAGTCCCATC	ACGATTGGGA	CAATCAAATC	CCGCATCAAT	AGGGACTTTA	4080
AAAGTCTTTT	CTCCAAAGAG	TTTTCGATAA	TAATCATTCA	AGGTATTATA	AGATTTTCATG	4140
ACTTTCATTA	TAACAAAAAT	CACCCACAAT	CTCAAAAGCC	TGACTTTCCT	ATAAATTCCT	4200
CTGTTTCTCG	TTTCCATTAG	CCTTTTTTTA	TGATACAATA	TGGGTATGAT	TTTAATGAAA	4260
TTAGCATCTA	TTTTATTATT	GATACTGACC	TTAGTCGTCT	GCATTATCCT	AACCAAACCT	4320
TTTAGATTAA	AAAAACTAGG	ACGAAACTTT	GCGGATTTGG	CTTTTCCAGT	CTTGGTATTT	4380
GAGTATTACT	TGATTACAGC	TAAAACCTTT	ACCCATAATT	TCCTCCCTAG	ACTGGGGCTA	4440
GCCCTCTCGA	TCCTAGCCAT	TATCTCGTC	TTTTTCTTCC	TTTTGAAAAA	ACGCAGCTTT	4500
TACTACCCTA	AATTTATCAA	ATCTTCTGG	CGTGCAGGAT	TCTTATTAAC	CCTTATCATC	4560
TATATAGAAA	TGATTGTTGA	ATTGTTCTTA	ATGAAATAGT	CGAATCCCTA	AGCATTTTCT	4620
AGGGATTTTT	GCTTTCTCTA	CAAATAGTA	TAGACAATAA	CACTATACAA	TTTATACAA	4680
AGAAAAGAGT	CTGGGACAAT	AGTCTCTTAT	ATCCAAAAAG	GCAACGGATT	TGCCGTTGCT	4740
TTTTTGATG	GTTACGATAG	TCTTGGTAAA	ATAGAATTGC	CCAATAAACC	ATTTAGAAAG	4800
GCTATCCCAT	GCATATTCAC	TATAACACAA	ATCAAACAAC	TTTACCACTA	GAAATCAGTT	4860
CCTTCTTACC	ACAAGATCAT	CTCGTTTTTA	CTATTGAAAA	AGTGGTGAAT	ACCTTGGAGG	4920
AACGTCACCT	CTACACCTCC	TATCATGCCT	TTGATCGCCC	GTCTTATCAC	CCTAAAATGC	4980
TTGTATCTAC	TCTTCTATTT	GCCTATTCAC	AAGGGATTTT	CTCTGGTCGA	AAAATTGAAA	5040
AATGGAAGAG	TTAGTGACCT	TAGATTGTTT	GTTTATTGAC	AGAACTAAGA	TTGAAGCCAA	5100
TGCCAACAAG	TATAGTTTTG	TGTGGAAGAA	AACGACAGAG	AAATTCTCCG	CCAAACTTCA	5160
AGAACAGATA	CAGGTCTATT	TTCAAGAAGA	AATCACTCCC	CTTCTGATTA	AATATGCCAT	5220
GTTTGATAAG	AAACAAAAGA	GAGGGTATAA	AGAGTCAGCT	AAAAACTTAG	CGAATTGGCA	5280

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CTATAATGAC AAGGAGGATA GCTACACACA TCCTGATGGC TGGTATTATC GTTTTACCA	5340
TACCAAATAT CAGAAAACAC AGACAGACTT TCAACAAGAA ATCAAGGTTT ACTACGCCGA	5400
CGAACCTGAA TCAGCCCCCTC AAAAGGGACT GTATATGAAC GAACGCTATC AAAACTTGAA	5460
AGCTAAAGAA TGTCAAGGCG TTTTATCTCC CCAAGGTAGA CAGATTTTCG CTCAACGCAA	5520
GATTGATGTG GAACCTGTCT TTGGGCAGAT AAAGGCTTCT TTGGGTTACA AGAGATGTAA	5580
TCTGAGAGGG AAGCGTCAAG TGAGAATTGA CATGGGATTG GTACTTATGG CCAATAACCT	5640
CCTAAAATAT AGTAAAATGA AATAAGAACA GGACAAATCG ATAAGGACAA TCAAATCGAT	5700
TTCTAACAAT GTTTTAGAAG TAAAAGTGTA CTATTCTAGT TTCAATCTAC TATACAATAA	5760
GAGAATGACT CAAAATTAAA AAGCTAGAGT TCCACAATTG GAAATATCTA GCTTTTTTGT	5820
GGTTGAGAAC TATTTTGTCT CAGGCTCTTT ATCTTCTATT TAGGACAAGA GTTTTTCTTT	5880
GGTCTTTAAT GATAAAGAAG GTATCAAAAT TTCTAGTCTT CTTTTTTACC TTTAGTAACT	5940
ACTAATCCTG CACTCAAACC TAGAAGAGTT AAACCTGCTG CTAATGCTGC TTGGCTTGCC	6000
GCACTACCTG TACTTGGTAA CTGGGCTTTA TTAGTTTGAC TAGCTTCACT TGAATCAATT	6060
GGTTTTGTAT CTGCTTTTTC TGACACTTGT GGTTTTTTAG CTTCTTGAGC TACTGGTTTG	6120
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TTACTTCCAT CAGGATTAAT CGCTGTAAAG ATACGTTCTT TTCCAACCTT TCCTTCTTGT	6240
TCTACACGAG TTTCACCTAG ATACAGTGTT GAATCTTTTT TCTCAACTGT CTTGTATGCC	6300
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TCTGAAACGA GGCGAACAAG TACTGGAAAG CTATCTTCTC CACTATCTAC CACAGTTGAA	6480
GCTACTTGAT TGTTTTCTTC AACTGAGACT TTTGGCCGTT GACCTTTATA GGTAATTGA	6540
TAGTCTTGAC GATTTTCAGC GAAATCAGCA AGTTCTTTTC CATCTACAAG AATCTTTGAT	6600
TGAGTGCTTT CTTGAGGCAA TTCACTTGGT GCAAGGAAGG TCATCTCAAT CATCGCAACA	6660
CCGCTCTTAT CTGCTTTACG CTCCATACGC CATCTCATAG CTTTGGCTTT GATAGCTTTA	6720
AATGTTACGT TGATTTTCATC ACCAGCTGCA ATGTCTTTAT CCGCACGATA AGGAACAGCT	6780
TCCCAATTTT CTGGATTGTT GAATGGATGG TCTGCGTCGT AGGCTTGGTA GTTTGAATAG	6840
TAGGTTGGCA CTTCAAATC TGGACCGACA TAGCGTTCTA AAACGAGTTT AGATGGTGCA	6900
TCCGTACCAC TATCTGCAAA GAACTGAACT TTTCTTGTG TAACAGTCCG TTCTACAATC	6960
TTACCATTTT CACGGAAAT CACACCCGCT GATACTTCTG GATTAGAAGA TGGTGTGGT	7020
GACCAGTTTG TCCAACGACG ATTTTCTGAA TGATCTCCGT CATTGAGATA GTCAACGCGG	7080

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TCATGAGAGT TTTTGTCAAT ATCATTGGTT GCTGAAGCAA AGGCCTGGTT ACTGTTTTCA	7140
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TCAGCAACAA GGTTACTACC AAGGACACGG CCTCGAACAG TAAATTGACC TGCTTTTGTC	7260
AGATTTTCCG CTGGAACCTC TCCCCATTCA ACTGTCAGGT CTTTGTGTTT GTAGCCGCTC	7320
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GTGACTGCCG GAACTTTTCC ATCTACAGAC TCAAGGTAGT AGTCTGTCAA ATCAGGGTTG	7620
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AATCCGACAC TTAGATTATC AACGGAGCGT TTGCTCAAGA TACCTGAATC TCCAAACAGA	8040
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CCATTAACTG TAAAGACACC TTCCTTAGCG TATTGCTCTG GACGAATCGC ATCCCATGCA	8340
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GGTGCTTCTG CGATTGGAGT TGTCACACTG ACTTCTTCAA CTGAAACGAT ACCTTCTACA	8460
GAGACTTTTG CACGCGCTTC AAGGTCAATT CCTTCAACTT TACCTAGTAC TTCAAATGTT	8520
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TTATGCAACT CAAGCATTC TTTACGAATT GCGACTTCCC CTTCACTACT TGTAAGAGAAG	8820

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GTTACTTTAT CAGCTGGTAA TACAGCTTGC GTTCCATCTT GATAGTGAGC TCGAACCGAC	8880
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GCAATTTTGG GCGCTTCTTC AAGGAATTGA ATTGCATAGG TTTGAAGAGG GCCACCATCT	9000
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ACAGCTGCAT TTTTAGCACT TGCTGTGACT TCTGGCAACT TAGCTCCATA AGCAAGAGTG	9120
CGGTATTGCA TTGGTTTTTG ACTAGTAAGA CCTGTTACTG CCTCACCACC AACCGTTACA	9180
GTTGGTACTG CAGGTGCCGC AGGATTGCCT TCTTCTACCA CAAGGGTTGC ATGAATTGGT	9240
TGACCTTCTA AATAACCGGT CGCTTGAATA CGAGAACCTG GAATTGCTAA CTTAGCTTTA	9300
TCTTCTTCGG CAATCTCCCA CTTGTCCACT TCATACTCTT CAACACTTCC ATCAATCAAA	9360
ACATAGGAAA CAGATTTGTC TACAGAATTC AAGTCAGTAT TTGGAGCAAT ACGTTTCACA	9420
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AGAAGGTGTA CCATCGGTTT CTTCTTAACA GAAACCCATT GGCTTTGGTA GAGATAGAAG	10380
TCATGTTTTG GAATGCCGCG TGTATCTACG ATACCAAAGT AAGAGCTCTT AACAGGAGTT	10440
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TGTCCAGCAT AGCCAGCGTT GTCACGGTCA AAAGTCCATG AAGCGGTTGC TGTTTTCCCC	10560
CAACCCACAC GATCATTTCC ATAATCTGAC TGTTCATAAT TACGCTCAGG TCCATTGCTA	10620

TGTTTCAATT CACGTTTCAGG GCGATAGTAA CTTCCACGTG TACGGGTAGC TGAAGATGTT	10680
TCTGATCCAT AAATCAACCA TTTTGGATGC TTAGCTCTAA GGGCTTTGTA ATTATCTTCA	10740
GAATAGTTAA ATCCAACAGC ATCGAGTTCA TCAGCAATTT TCTCATGCCC TCCGCTACCA	10800
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ATAACCTTAA CCAAACGTTT AACAGTTGCT AAAGAGTGGG CATCACCATT AGCTTCACCT	10920
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TTTTCAAAGA AACGTCCATA GTCATAAGGT TTCTTGCCAC CATACCACGT ATCAAAGGCC	11100
TCTTCCTGAA CGAGTAAACC TAGTTCTGCT GCGATTTGCA AGGTTTGCTC ACTAGCAGGG	11160
TTGTGGGTTG TACGGATGGA GTTAACTCCC ATCTCCTTCA TTTGTTTGAG ACGGCGATAT	11220
TCTGCTTTAT AGTTTTCTTC TGCTCCAAGC GCCCCATGGT CGTGGTGCAA GGATACTCCA	11280
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CGGTAACCAA ACAATCCTT CTTAGCATCA ACCAATTGAC CGTCACGGTA AACACGCGTA	11400
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ACTAAGCCTG TTACAGCATG ACCACCTCGT TCAACGATTT GATATTCGGC TACAAGTTCA	11580
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TTGGTGATAT CATATGAGAA CTGGTTATAA CCATTTGGAT AATGCCCCAC TAACTGACCA	11880
TTGACATAAA CTTGAGAATC CATGTAGACG CCATCAAAAG TAAGGCGAAC ATTTTTCTTG	11940
AGGTCTTTTT CATCTAGTTT GAAAGTCTTG CGATACCAAG CTTCCCCACC GTTGAGCTGT	12000
CCACCTTCAT TTTGTGCAGG AGATTCATGA TCGAAATCGT TAAAGATACT CCAGTCATAC	12060
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TTTGCAATTGA GTTTAAAGTA CCAATTTTGA TTAATAATCCA CTTTCCTGTC TTCAATCATT	12180
TGATTCACCT CTTCAATTGT TACAGCTTTA GCATCTTCCT TGAGCGGTTT TTCTTGATTT	12240
GAAGCTTGTG ATTCTATCCT TGGAGCTTTT TCTTCCGGTT TAGCAGACAC TTTTCTCTCT	12300
TTTGGAGTTA CGGCTTCATC TTCTTCTTC TCAGATGCAA TAGCCTCAGT TGAAGTAGGT	12360

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TCACTTTGTT CTGTCCTTTC AACTATATTT TTAGTTTCCA AAGCTTTATC AGCCTTTTCT	12420
TCTACTATCA TTTTTCCTC TTTAGGTTTC TCAGCAGTAT GAGTAATAAG TGTTCATCC	12480
GCATAAACTA CAGATTCTCC AGCTATATTT CCTCCTAATA AACTGCACA AGTCCCAATC	12540
ATTACTGAGC AAGCTCCAC AGCAAACCTA CGAATGCTAT AACTCTTTT CCGATTCCAA	12600
TGGCCTTTCC CCATAAAACC CTCCTTATAT TATATTTAGT GCAGTTAGCT ACTACCAAAG	12660
CCCAAGTGGT ATACATGGTA TGACAACCTA GTTCAACAA TTTACACTCT GCGAAAATCC	12720
AATTCAAAC TCGTCAGTGT CGCCTTGCCG TAGATATGAT TACTGACTTC GTCAGTTTCA	12780
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CATACGGAGC AATTTACCAC GAGTTACAAC CAAGAGAGCT GGAGTAACAC CCATAGCGAT	13380
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AGCATCAAAG TCATATTTAT CAAGGCCTGG GAAGAATTTT TCAAAAATCT TATCCAAAAC	13860
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GGCGTTAAGA AGGTCATCAA ATGTAGGTTT CATCAAGTCA GAGTTGATAA TTTTCAACAC	13980
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GTTATCAGCA TACCATTTAA TCAAGAGACC TGTGATAGAC AAGTGCCAGA TATCAAAGAT	14100
ATCGACATCA AGTGATCTG TTTCTTCAT AGCTAGCATC ACTATGTTGA CAATCAACAT	14160

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GATGAGCAAG AAGTATAGTG TCCAAGCAGA ACCCCAAGTG ATTGTAGCAA GTGGTGCCCA	14220
ACCAACGTCG GTAATACTCA ATTGGATACC AGTGTTTTCA ACGAATTTTG CTAGTGATGC	14280
TGAGAAAGCA GTGTTTAGCA TACCGATGAT AGCACCATA CCTGTAAGAG CGATGGCAAG	14340
TTTGATACCA CCTTCAAGCG CTTTGGAGAA TTCTACTCCA AAAAGTAAAG CCAATACTGT	14400
CAAAATGATT AACATGATGA CAGGTCCACC CATTTCTAAG ATGGGATTGA AAACCTTTCC	14460
GATTAGGTCA AAGATTGCAT CCATAACAGT TCCTCCCTTT TTGATGTTAT ATGAATGTTA	14520
ACAAATTAGA ATTAGCTTAA TCCGTGTTCT TTAATAGCTG CTTCAATATT GTCAAATACT	14580
GGAGCGCTCA TTGCTGGGAT ACGGAATAAG ATTGGCCCAG CTTGATAAC TGGGATACCT	14640
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TCTTCGTTTA CATCTTTCAC CATGACTGCA TCACAGTGAA CATCATAACC ACGGTTTGAA	14760
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ACTTGAATTA TTAATGATAA AGAAGAGTAG GGATACTTCT ACTTCCTTAT CAGGAGCTAT	15060
CATATTGTGA AAAGTTATTG GTTTTTCTAA TCGAACAACC ACCACTTTCT CAGCTAGATT	15120
ATGAACAATA TCTGTGTGAG GAATCGCTAC ATTTGGCAAG TCCTTTCCTA GAAATTCAT	15180
ATCTAAACCA GTTGGAATG ACTTTTCACG CGTGATCAAG GCTTCACGAT AAGTTGGAGT	15240
GACAATTTCT CGTTCTTCCA ATAAAGTGC AACCTGATCA AAGAGTTGTT CTTGACTATC	15300
CGCTTCTAAG CAAAACACAA GGTTTTTGTC AAAGAAATAA TCTAATACCA TAAGTTTTTC	15360
CGG	15363

(2) INFORMATION FOR SEQ ID NO: 140:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 28882 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: double
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 140:

TAAGACTATT TAATAGTGA GTGAAATAGG ATACGAACAA ATTGATTAGG AAAATCAAAT	60
GAATTTATAG AAATCTTTTA GCAGTTATGT TATCTATTTC TAGTTTCAAA ACGCTATAGA	120

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AGCAGCATTG TGCTAGTCKA GATTCAGTTT ACTATACTAA AACGAGTAGC TTGAAATCAA	180
AAAACCCACC CTCACAGGCA GGTTTTATCT GTATTATTCA GCTAGATTAT GCTTTACCTT	240
CTGAACCGAA TACGTCGATA CGTTCTTCAA CCGATGCTTG GATAGCTTTT ACACCGTCAG	300
CCAAGAATTT ACGTGGGTCG AAGAGTTTTT TCTTGTCGTA TTCTGCTTCG TTTGCTTCGT	360
AGTCACGAGC AAATTTACGA GTTGCGTTAG CGAATGCGAT TTGGCATTCT GTGTTAACGT	420
TAACTTTGGC AACACCAAGT TTGATAGCTG CTTGGATTTG CTCATCAGGA ATACCTGATC	480
CACCGTGCAA TACGATTGGG AATCCTGGAA GAGCTTCTGT CAATTTTTGC AAGTGGTCAA	540
GGTCAAGACC TTCCCAGTTT ACTGGGTAAG GACCGTGGAT GTTACCGATA CCAGCTGCCA	600
AGAAGTCGAT ACCAGTTTCA ACCATTGCTT TAGCGTCTTC GATTGGAGCC AATTCACCTT	660
TACCGATGAT TCCATCTTCT TCACCACCGA TAGTACCAAC TTCAGCTTCT ACTGAGATAC	720
CTTTAGCGTG TGCTTTTTCA ACAACTTCTT TAGCCAATTT AAGGTTTTCT TCAACTGGAA	780
GGTGTGAACC GTCAAACATG ATTGAAGTAT AACCAACTTC GATACACTCA AGTGCATCTT	840
CGTAGTGACC GTGGTCAAGG TGGATAGCTA CTGGTACAGT GATACCCATT GATTCAACAA	900
GGTTAGCGAT CAAGTTGCGA GCAACTTTGT AACCACCCAT GTATTTAGCA GCACCCATTG	960
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ACTCAAGGTT GTTTGTGTTA AATCCACCAA CTGCATAACC GTTGTACCGG GCTGCTTGGA	1080
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ATCCCATTTA CATGTTCAT TTTATCACTT TTTGCCAAAA AAATCTAGTT TTTCCCGCAG	1200
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ATCCACAATC CCCAAGGCAA CTCCCAGATA CTGGTCTCTA TCCTTATAAC GACCGATATT	1800
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AGCTCCTCGT AGGAATTCGA CCTTCATCTT CTCCAGCTGG AGAATGGCTT CATTCTTTTC	1920

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CCGACGGGTC ACCCGCTTGA TTTCCAAAAT CGGTGCAACA ATAGTCCGAG CGTAGATGTA	2100
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GATTTGCTCC GCTTCCTTTT GTAAATCCAT GGAAGCTAGA AACTGGAGAA TCATAGTACC	2220
ACCGTCTTGC GTTTTCACCT CGCGCTCCTC AATAAGAGA GAGGTTGTCT GGCGGTCTGT	2280
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AATAGTACAC CTCTACTTCT	

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GTATCTAAAG CTTTCACGCT AATCGCTATC GGGCGATTAG CTAAATGCTT TACTAACTCT	15240
CTCGTCAAAT AACATCGATT TGACTCACTC GTGTCGTAA ATCTTACAGT TTAAATGCAT	15300
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TTTCTTAAAA AGTGAGGTCT TTACCATTAA AAAGGAACCA TTCCCCTCAC CTGAGAAGAA	15420
TGGTTTGCTT TTATTATCCT AGAGACTGGT GATTAAACAA GGCATGGGTT GCTTGATGGA	15480
TGTATTTTGC TGTATCAGCA TTATTCATCG TATAGAGATG CACACCGGCA ACATCCTGAG	15540
TTACCAAGTC CACGATTTGG TCCACTGCAT AGGCAAGTCC TGCTGCTCTG AGCGACTCAG	15600
GGTCATGCTC ATACTTGTCT AAGATGGCTT TAAATTTGCG TGGAAGATGG ATATTCTCAC	15660
AAGTCTTCAA GAGTCGGAGA GCCTGATTTT GATTCAGAAT TGGCATAATT CCTGCATGAA	15720
TGGGAACATC AATCCCAGCC AAGATACACT TGTCTGAAA ATCATAGAAG CGCTCATTGT	15780
CAAAGAAGAG CTGAGTTACG AGGCTCGAAC AGCCTGCATC CACTTCTTTC TTAAGATTTT	15840
GAATATCTGA AATCTGATTT GGCGAATCTG GATGCCCTTC TGGATAGCAA GCTCCAATAA	15900
TATCAAAGTG AGGGGTTTGT TCCTTGATAA ACTCAATCAA GTCGGTTGCA TAGCGGAAAT	15960
CCTTTTGTGG TTCCACGTCT GGAATAATAT CCCACGAAG AGCCAAGATT TTCTGCACCC	16020
CAACTTTGTC CAAGTCAGCA ATAGTTTCAG CAACCTTGTC CTTAGTTAGA TAAATAGCTG	16080

GCAAGTGGGC AATGGTCGGA ATCGCCAAAT CATTTTGGAT AAAGTCAGCC AAACGAACCG	16140
TCGTTTCCTT GATATTAAAT TTATTATTGC TGGCAGTTAC ACTGATAAAA TGGGGAGCCA	16200
ACTCCTGCAT ATCCTGCAAG GCTGAAATAA TGTATCATT ACCCACGGCT GGGTTTGGAG	16260
GGAACACTTC AAATGAGAGT GACGGTGTTT GGCCTGACAT ATGTAATAAC CTTTTCTAGT	16320
TGATTTCTTT TTGAACAACC ACTGTATGGA GAGAAATCCA ATCTTACAAT TTCTCACGCG	16380
CAGCTTTAGC TGCTTCAACA AGGCGGATCA AGCTTTCTTT TGTCTCTGGG ATACCACGTG	16440
TTTTCAAACC ACAGTCAGGG TTGATCCAAA CTTTCTTGCT TGGCACTTTA GCAAGGATGG	16500
CTTCGATTGT GTTGTGATT TCGCCTTCAT TTGGTACACG AGGTGAGTGG ATATCGTAAA	16560
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GGCGGAGTGG CAATTTTTCA CGAAGAGCAG CCTCGTCGAT TTGGATGATT TTCACACCAG	16860
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CCATGTCATT ACGCTCAAAT TCACCGTGAA CAAGGACATC AAAGTCAATA TCTTCTTGCC	17220
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GAGTCTTGTC AGCTGGGAAG CCACCTTTAA CGAGTTCAAG AGTTTCTTA CCTTCAACAA	17820

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CAGTCAAGAC ATCAGGAGCT TCATTGACGT GTTTCCCGAT GATTGGACGC ATCTCAGCAG	24780
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TTCTGTTGCT TCTCCTAATC CACCTTTGGG TAACACATCC TGAAGTATA AGCCCTTACC	26760
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ATCTGGAAAA ATGGTCATAA CTTTCCTCCA TTATAATATT ACCAGTAATT CCTTAGAATG	26880
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ATCATCATTG ACTAAATTTT CATCTTTTAA TTCTAATCTT AAACGTGTTA CACAATGGGT	28620
AACTCTATTG ACATTTTTTT CACCTCCAAT TACATCGAGG ATTTTTTGTA CCGTATCTTT	28680
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GCCATCAAAT AAATAATTCT ACTAGAAGTC AGCAAATAAT TGTACTCCGT TTGTATAAAC	28800
ATTGCTACCT GTTCACCACA TTCATATTCT CTAGGATATT TATTTTTCAT TAATGCTAAC	28860
AAGTCTTCAT CATCATCGTC GG	28882

(2) INFORMATION FOR SEQ ID NO: 141:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 12835 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 141:

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TTTGTAGGAG GTGGCTTATG AAGATTCCTC TCTTAACTTT TGCAAGGCAT AAATTTGTTT	300
ATGTCTTGCT TACTTTGCTT TTTCTTGCTT TGGTTTATCG TGATGTTTTG ATGACTTATT	360
TCTTTTTTGA TATTCATGCG CCCGATCTAG CTAAATTCGA TGGACAAGCA ATTAAAAATG	420
ACTTATTAAA ATCAGCATTG GATTTTCGTA TTCTCCAGTT CAATCTAGGT TTTTATCAAT	480
CATTTATTAT TCCAATCATC ATTGTTTTGC TAGGTTTTCA ATATATTGAG CTGAAAAATA	540
AAGTTTTACG ATTGAGTATT GGAAGAGAAG TGAGTTATCA AGGGTTAAAA AGAAAGTTGA	600
CTTTGCAAGT TGCAAGTATC CCTTGTTTGA TATATTTAGT GACTGTGCTG ATAATTGCAA	660
TTATAACCTA TTTCTTTGGG ACTTTTTCTC CTCTTGGATG GAATTCCTA TTTCTGATG	720
GAAGTGGTTT ACAAAGACTC CTAGATGGAG AGATAAAAAG CTATTTGTTT TTTACTTGTG	780
TCCTACTAAT CGGTATTTTC ATCAATGCAA TCTATTTTTT ACAAATAGTT GATTATGTGG	840
GGAATGTGAC TCGTTCGGCA ATCACCTATT TGATGTTTCT TTGGCTTGGT TCTATGCTGC	900
TTTATAGTGC CTTGCCTTAC TATATGGTTC CTATGACGAG TTTGATGCAA GCTAGCTATG	960

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GGGATGTAAG TTTGATGAAA CTCCTTACTC CTTATATCCT TTATATTGTC CCTTACATGG 1020
TGCTTGAAAA ATATGAAGAT AATGTTTAAG AATTTTAACA ATATTTTGCT AAATAGAAAG 1080
ATTGTTTTAC TACTTCGTAT AGTTCTGATG ATGATTTTGA TAAACCATCT ATTGTCAACA 1140
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TATAATGACT ATTCTGAAGC GAATTTAGAA ATCCCCAAAC TATTGTTAAA CCTTTCGCTT 1260
TTCATGGTAG GATGGCTCTC TGTCATTTTA CTGAAAGTG ATTTGGCAGA CCATTACCAT 1320
CACTTGATTC GCTATCAATC AAGCTCCTTT TTCGATTATA CAAGGAAACG ATTGGTTGTC 1380
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CTTTGGATTA ACTTATTTAT CACATTTGCC ATTTTGCCGA TTTTGGCAA TTAAACAGTC 2640
ATAAAAGTCG GAGAGGTTAG CTTGAAAAC AACCTCTTTT TCCTTTTCAA AATGGGGATT 2700

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CTTCCTTGAA AATAATCAGT AATTGTGCTA AAATTAAAGG AACATTCTAA AATATTCCGA	2760
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AGAAATCCGT CGTCTGGAAA AGATGGCTGA CAAGGTTTTC AAATACGAAG ACCAAATGGC	2880
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GAGAAAATGG GCTTGAAAAA TCCTTTTATC ATCATTGATA CCAATCATGA CAATCTGGT	6180
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960

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TGCCGTTGCC AAGGCAATTC AAGATGATGT TGATGGCTTT TGCCTTTCCA ATATCGATGA	8040

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AGCCATTGAA CTCAGACAAG CTGGACTCAG CAAGCCAATC CTCATTTTAG GAGTTTCTGA	8100
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CGATTACAAA ATAAAAGGAG CATGCTATGA AAAATCCAGC TTTGCTAGAA GAAATTAAGA	11520
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AAAATGTTTC CACGCTTCCA TCCTACCACT TGGAGGAAAG AGATTTCAC ATTCTCAAG 11640
TCAAGTGCTA TGAGTTAACA TTTGAAGGAA GCAAGGAAGG AAAGGTCTAT GCACGCATTG 11700
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TCAGAAAGCA AAAGCCGATA CCTATCGAGT AGGGTAGTTC TTGCTATCGT CAGGCTTGTC 12780
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(2) INFORMATION FOR SEQ ID NO: 142:

- (i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 5020 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 142:

GGGGATATGA AGAACAAAAG AATATTTAAA GACTTCCAAG CTTCAAAAAT GAGTTTAAAC 60
ATTTACACAA GCCCCTTGTT AGCCTTGTT TTTGTCTTCA TAGGAGAGTT TGTGGCTTTT 120

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ACTTTGTATG GTATTGGCTT GTTAGCTCTC ATCGGACTTG CTAGAAATTT TGGAGAGGCT	180
GGTCAAAATC TTGCAAGCTA CTTGCAGACC TTGCATCAGA GCTTGACGGA TAAACAAGT	240
GACTTTCGTT TAATTTTAGG ATTACTGGCC TTGGTTATT CTTAACTG TGTTCAGATG	300
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CAGCAATCTT CTGAAAGGAT TTAGTCTAGG CCTGGCACTT TTTCTTCTGA CCTTGTTAGG	420
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CCGTGCTTGG CTACTTCCTC AATTGGCCTC AAGAACCAAT CTAAACTAG CTATTCCTAT	600
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AGTAAATCTC TTTTATTCG GAGTTGCCAT GGCTCTTTAC CTTCTCAAAA CTGATACAGT	720
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GGATAGTTCT GTCAATGACG AGATTGACAA GCTTCGCCAC TCAGCTACCT CAGCCCTTTT	1440
GGAGCGTAAT GATGTTATTG TCGTGGCCTC AGTCTCTGT ATCTATGGTT TGGGTTCGCC	1500
CAAGGAATAC GCTGATAGTG TCGTTAGTCT CCGTCCTGGT CTAGAGATTT CTCGTGATAA	1560
ACTCTTGAAT GACTTGGTCG ATATTCAGTT TGAACGTAAT GATATTGATT TCCAACGCGG	1620
AAGATTTGCG GTTCGTGGGG ATGTGGTAGA GATTTTCCCA GCTTCCCGAG ATGAACATGC	1680
CTTTCGAGTA GAATTTTGTG GAGACGAAAT TGACCGTATT CGTGAAGTTG AGGCTCTGAC	1740
AGGTCAGGTG TTGGGAGAAG TGGATCATTT AGCGATTTTC CCAGCGACAC ACTTTGTGAC	1800
CAATGACGAC CACATGGAAG TTGCCATTGC AAAGATTCAG GCCGAGTTGG AAGAACAATT	1860
AGCTGTCTTT GAAAAGGAAG GTAACTGCT TGAAGCCCAG CGTTTGAAAC AGCGGACAGA	1920

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GTATGATATC GAAATGTTGC GTGAGATGGG CTATACCAAT GGGGTTGAAA ATTATTCTCG	1980
CCACATGGAT GGACGGAGCG AAGGAGAGCC TCCTTATACG CTCTCGACT TCTTCCCAGA	2040
TGATTTCTTG ATTATGATTG ACGAGAGTCA TATGACCATA GGGCAAATCA AGGGCATGTA	2100
CAATGGAGAC CGTTCGCGTA AAGAAATGCT GGTAAATTAT GGTTCGGTT TGCCGTCTGC	2160
TTTGACAAT CGTCCTCTCC GTCGGGAGGA GTTTGAGAGT CACGTTTCATC AGATTGTTTA	2220
CGTTTCAGCG ACACCTGGTG ACTATGAAAA TGAACAGACC GAGACAGTGA TTGAGCAAAT	2280
CATTCGTCCA ACGGGACTCT TGGATCCAGA GGTGGAAGTC CGTCCGACTA TGGGACAGAT	2340
TGATGACCTC TTGGGTGAAA TCAATGCCCG CGTTGAAAAA AATGAGCGTA CCTTTATCAC	2400
AACTTTGACC AAGAAAATGG CAGAGGATTT GACCGACTAC TTCAAGGAAA TGGGTATCAA	2460
GGTCAAGTAC ATGCACTCGG ATATCAAGAC CTTGGAACGG ACGGAGATTA TCCGTGACCT	2520
GCGCTTGGGT GTCTTTGATG TCTTGGTCGG AATTAACCTG CTCCGTGAAG GAATTGACGT	2580
TCCTGAAGTG AGCCTCGTAG CTATTCTCGA TGCTGACAAG GAAGGTTTCC TTCGCAACGA	2640
ACGTGGACTC ATCCAGACCA TTGGACGTGC TGCACGTAAT AGCGAAGGTC ATGTTATCAT	2700
GTATGCGGAC ACGGTTACCC AGTCTATGCA ACGTGCTATC GATGAAACTG CCCGCCGTCG	2760
CAAAATCCAG ATGGCCTATA ATGAAGAACA TGGTATCGTT CCACAAACCA TCAAGAAAGA	2820
AATCCGTGAC TTGATTGCTG TGACCAAGGC AGTTGCTAAG GAAGAAGACA AGGAAGTCGA	2880
TATCAATAGC CTCAACAAAC AAGAGCGCAA AGAACTAGTC AAAAAGCTTG AGAAACAAAT	2940
GCAAGAAGCA GTTGAAGTGC TTGACTTTGA ACTAGCAGCT CAGATTCGTG ATATGATGCT	3000
GGAAGTCAAG GCCTTGGATT AGGGGAATAG TATGATTTAT TTAAGAAAGT TAAAGAAAGA	3060
AGATTTGATG TCTTTATGGG AAATGGCTTA TTCACAGCTT AATCCAGTTT GGAAACAGTA	3120
TGATGCTCCC TATTATGATG ATTATCAGTA TTTTTCAAAT TTAAAGAAT TCGAACTACA	3180
AAAATCAGAA TCCATTTTAA GCAACTCAAA TCGCCTTGGT ATTTTGTGTG ATGATAAACT	3240
AGTTGGGACT GTTTCGCGTT ATTGGGTATG TAAAGAAACA AGATGGATGG AATTGGGAAT	3300
TGGTATTTAT GATAAAAAAT TCTGGAACAC TGGTATTGGG AAAGTTGCTA TGTTCAGTG	3360
GATAGATAGG ACGTTTCAGG ATTACTTGGG GTTGGAGCAT CTGGGTTTGA CAACTTGGTC	3420
AGGAAATATT GGTATGATGA AACTTGCTGA AAAATTAAGA ATGAAAAAAG AAGCTCATAT	3480
TCCAAAAGTT CGTTATTATC AAGGTAAATA TTTTGACAGT ATTAAATATG GTATTTTGAG	3540
AGAAGACTGG GAGAAAATAA ATGACGGTTA TTATCAAATC AATGGAAACT CCTGAAGAGA	3600
TAGAAGGTAA ATCCTTCGTT CACTGGCAAA CGTGGAGAGA GGCTTATGAT GACCTTTTGC	3660

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CTGCGGAATT TCAGGAGACA ATGACATTAG AAAGATGTCG ACTCTTTAGT CAAAAGTATC	3720
CAGAAAATAC ATTGATTGCG ATGGATGGTG TGAAGATAGT TGGTTTTATA AGTTATGGCA	3780
ACTGTCGTGA TGAGACTATT CAAGCTGGTG AAATTATTGC TTTATATGTT TTAAAAGACT	3840
ATTATGGAAA AGGAATCGCA CAAAAGTTAG TGAAAGCAGC TTTGACTGAT CTTAATCATT	3900
TTTCTGAAAT TTTCTTATGG GTATTGAAAG ATAACAAGCG CGCCATTGCT TTCTATCAAA	3960
AAATGGGTTT TACTTTTGAT GGACAAGAAA AAATACTTGA ACTTGGAAG CCTATAAAGG	4020
AAAAACGGAT GGTATTCTAT TCTAAATAAT TCTCAAAAGT AAAAGCTAAT ATGGTACCAA	4080
GTCTGAAAAT TTAATAAATT AGAAAGCGAG TAAATTTATG TCCCGTTCCC AATTAACAAT	4140
TTTAACAAAT ATCTGTCTGA TTGAAGACCT CGAAACTCAG CGCGTGGTGA TGCAGTATCG	4200
CGCCCCTGAA AACAATCGCT GGTCTGGTTA TGCCTTTCCT GGAGGTCATG TAGAAAATGA	4260
TGAGGCTTTT GCGGAGTCTG TCATTCTGTA AATCTACGAA GAAACAGGGT TGAATATCCA	4320
AAATCCTCAA CTTGTCGGCA TTAAAAATTG GCCACTAGAT ACAGGTGGGC GCTATATTGT	4380
CATTTGTTAT AAGGCGACTG AGTTCTCTGG TACCCTTCAA TCTTCAGAAG AGGGAGAAGT	4440
TTCTTGGGTG CAAAAAGACC AGATTCCAAA CTAAATCTG GCCTATGATA TGCTACCATT	4500
GATGGAAATG ATGGAAGCTC CCGACAAGTC AGAGTTTTTC TACCCTCGCC GTACAGAAGA	4560
CGATTGGGAA AAGAAAATCT TCTAGTCTTT TACTAAATAA CCTAGCTGAT CCAAGGCCTC	4620
CTCGATATAG TGGAGGTCTT GTTGTGTCTC GGCTTCAACT AGGTGATAAT GAATACCATC	4680
TGTTAACTCA GAAATTGGCT TAAAGTCAGA ACGTTCAACT TGTTCTAGAA AATGTTGCAC	4740
GTGCGGGCGA CAGGTCAGTT TTAGTAAGGT TTCAATCTCT CCATAAACAG GATGATCAAT	4800
CAAGATATTT TGAACGCGAC CACCATTATC TACGATAGCA AGTAATTCTC GTCCAATTTT	4860
TTCAACTTCA TGCTTGACCT TAAATAATTT GTGATGATAA GTATTTGCAT TAGCATCTTT	4920
ATAGATATAA CCACGATTGG TAGATAGAAT TGGAGATCCA TCAGCTCTTA AAATTGCAAT	4980
ATCTTGAACA ATAACCTGTC GAGTGACATG AAAGTGCTCA	5020

(2) INFORMATION FOR SEQ ID NO: 143:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 4965 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 143:

AAAAAGTGGC AATCCATTGA TTGGCCACTT CATTTAGAGA ATTATCGTCT CGCCCTTGAA	60
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GAAGAAGGTC GTGTAGTACT TGAGTTACTG CTATCGCTAG AACTACTACT TGAAGTGGTG	120
GAGCTGGATG GAGTTGGTAG ACTCCCCACA ATACTAGACC AAGCATTCTG ATAATCCGCA	180
TCACTTCCGC CAATAGCAAA GCGATAACTT GTCGCTGGCG CTCCTGACTT ATTAGCCCCAA	240
TAGCTGGTAA CAGTCGAACC TGTGACCTCT ACTTCTTTTC CTTCAACAGA AACCTTCTCT	300
GGTTTTTGAC CTGTTGATT CAAGACTTCC GATTTCAC TA CACTAGGATC TAAAGCAAAG	360
CGCTCGTTCC CCCAAATGCT TGGGGAAGCT TGCTGAATCG CATTTACCAG ATGAGCCATG	420
TAATTAGAGT TATTAGAATA ACCTGCTCTA CGTGACAATG AATGATTATC ATCATGCCCA	480
ATCCAGCCAC CTAGGGTTAA TCTAGGTGTC GAAAGCATGA GCCACATATT TTCGTCTTGG	540
TTGGTTGTAC CAGTCTTCCC AATCCAATCT GCATTAGCCA GAGTAGGATT TAAAGAAGTC	600
AGGTTAGACT TGAAGGTTGT TGTACACGA GAGGATAGAA CTTCTCGTAG CAATCCCTGC	660
ATAATCGTCG CAGTAGCTTT TGAATAGACT TGAACCGGTT TATCCTGATA CTCATACACC	720
ACTCTACCAT CTGCTGCTTC AATCTTTGAA ATCACATGCT TCTGATGATA AACTCCATTA	780
TTAGCTAAGG TCTGATAGCC ATTGGTATGC TGGGCAACTG TGACTTCAAT ACCACCACCC	840
ATTGGCAAGC TCTCAATACC GTACTCAGGA ATCTCGTAAC CCATCTTTTC CATATAACCC	900
TTGACATCAA CACCCTTTTC ACGGAGCATA CGATAGGTCC AGTAAGCAGG GATATTCCAT	960
GAATAGTTCA GAGCTTCTCC CAAGGTCATC ATTCTGTTC CCTTGCTATT AGCATACATA	1020
ATCGGATTGC CATTAGCAAA GTTTGTTGGA TAGTTAGATA GAATCGTTTC ACTTCCCATC	1080
AAGCCCTGGT CAATAGCAAT ACCGTAGGCC AGCAAGGGCT TGGTAGTAGA AGCTGGCGAA	1140
CGTTTGGTAT CAAAGGCATG ATTATTTGA TTTTCTTGAT AATTACGACC ACCTACAAAG	1200
CCTAGAATAG CACCTGTTTG GTTATCCATC AAGACATTCC CTACTTCTAC ACGACCTGTT	1260
CCATCGTCTA AAAGATAGCC ATAATCAGCA ACCGCACCTT GCATGGCAGA ATGAATTTTC	1320
TGATCTATGG TAGTAGTAAT CTTATAACCA CCATTTTCAA TTTCTTGGC TGCCAAATCT	1380
CGATAAACT TCTGAGTTGC CTCATTTTTC AACTCCTTAG CGGAGACATT GTCTCTCTGA	1440
GCTAGATAGT CATACATACG TTCTTGAGCT TCTGCCAAAG TTGTAAAGTA TAAATAGTCT	1500
CGTGAAATTC CTGTAACCGT GCGGATGGT AAAAAGTCCT GTTTAAGGTC ATAATCCTTG	1560
TACTGAGAAT ACTCGTCTTT GCTTAATGCA CCTGTACGAT ACATACTGTA AAGAACTGCC	1620
TTAGCCCGTC TTAAGCCAAT TTCTAGGTCT TCATCACTCT TCAACTCCCC AGTATTTTCA	1680
TAAGGAGAGT AAGTAATGGG ACTCTGTGGA AGTCCTGCTA AAAATGCTGC TTGAGGAACA	1740
GTCAACTGAC TGGCATCTAC ACCGAAAATT CCCTCAGCTG CTGCGGAGC CCCTGCAATA	1800

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TTCTGTCCCT TATTATTTTCG GCCAAAGGGA GCCACATTGA GATAGGTCGT TAAAATCTCA	1860
TCTTTATTCA TGGCGCGTTC CAAGGCAAGA GCATCCACAA TCTCTGCCGC CTTACGAGCC	1920
AAGGTCGGCG CATCCCCAAC CACCTGCTGT TTAATTAGTT GCTGGGTCAA GGTGAACCC	1980
CCACTAGAGG AACCCAAACC TACAAATTTT CCAAGGTCG CACGAATCAC CGCCTTGGGT	2040
ACTACACCTT TATGTTCTTT AAAGTGTTCA TCTTCTGTCG CAATGATAGC CTTCTTCAGA	2100
TTTTCCGAAA TTTGCTCAGA TGAGATAGAA GTGCCAACA AATCACTCTC TATGGAAGCA	2160
ATCACCGTCC CGTCCGAATA GGTAATCTCT GAAATAGAAG AGATGTCCTT GACCTGATTC	2220
ACCAATTCTT CTGCTGAGG CACCCGAACC TTGTCAAATA AGGCCACTCC GTATCCCAA	2280
GCAATCCCAG CTCCCAACAT TCCTCCTAGA AAACCGAGTA CAAAGAGTAA GTTAAATAAG	2340
GCTTTTATAC TCAGTAAAAT AGCTGGGAAA ATGACTGACT TATCTAAGGT TTTAGATTTT	2400
TTGGTACTTG AACCTTTCTT GCCAGGTCTA GCTGATTTTT TATTTTTTTG TTTTGCTGG	2460
AAAAATTCCA GCATTTTTCG TTTAATTCA TTTAATTGAT TTTGCATGGA TTTCTCACT	2520
TTATCTATTA TACCACAAA GGGAAATTTT CAATAAATA GCCACTTTCT TCCCTATTCT	2580
GCTAGGCTAT TGCCCAAGTT TGTGATACAA TAGGTAGAAA CAATAATTTT AAAAAGGAGA	2640
AAAAACACAT GCACATTTT GATGAGCTAA AAGAGCGTGG TTTGATATTT CAAACGACTG	2700
ATGAAGAAGC TTTGCGTAAA GCCCTAGAAG AAGGTCAAGT TTCTTATTAT ACTGGCTACG	2760
ATCCAACGTC TGACAGCCTT CACCTAGGCC ACCTTGTCGC AATCTTGACA AGTCGTCGCT	2820
TGCAACTAGC AGGTCACAAA CCTTATGCGC TCGTTGGCGG TGCTACAGGT CTCATCGGAG	2880
ATCCGTCCTT CAAAGATGCT GAACGTAGTC TCCAAACAAA AGACACAGTA GATGGCTGGG	2940
TCAAGTCTAT CCAAGGACAA CTTTCTCGTT TTCTTGACTT TGAAAATGGC GAAAACAAGG	3000
CTGTCATGGT CAACAACTAC GACTGGTTTG GCAGCATCAG CTTCAATGAC TTCCTCCGTG	3060
ATATTGGAAA ATACTTCACG GTCAACTACA TGATGAGTAA GGAATCTGTT AAAAAACGGA	3120
TCGAAACAGG AATTTCTTAC ACTGAGTTTC CTTACCAAAT CATGCAAGGG TATGACTTCT	3180
TCGTCCTTAA CCAAGACCAT AATGTCACTC TTCAAATCGG TGGTTCTGAC CAGTGGGGAA	3240
ATATGACAGC TGGTACCGAA TTGCTTCGTC GTAAGGCGGA CAAGACTGGT CACGTTATCA	3300
CTGTTCCACT AATCACAGAT GCAACTGGTA AGAAATTTGG TAAATCAGAA GGAAATGCCG	3360
TCTGGCTCAA TCCCGAAAAG ACTTCTCCAT ACGAAATGTA CCAATTCTGG ATGAACGTGA	3420
TGGACGCTGA CGCTGTTTCG TTCTTGAAAA TCTTTACTTT CTTGTCACTT GATGAGATTG	3480
AAGATATTCG TAAACAATTT GAAGCAGCGC CACACGAACG CTTGGCTCAA AAAGTCTTGG	3540
CTCGTGAAGT TGTTACACTT GTTACGGAG AAGAAGCCTA CAAAGAAGCA CTTAACATCA	3600

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CTGAGCAACT CTTTGCAGGA AACATCAAAA ACCTTTCTGT CAAAGAGCTC AAACAAGGAC	3660
TTCGTGGTGT GCCCAACTAC CAAGTACAGG CAGACGAAAA CAACAATATC GTGGAACTGC	3720
TCGTCTCATC TGGTATAGTT AACTCAAAAC GCCAAGCCCG TGAAGACGTC CAAAACGGAG	3780
CCATCTACGT AAACGGCGAC CGCATCCAAG AGCTTGACTA TGTCTTGAGT GACGCTGATA	3840
AGTTAGAGAA TGAAGTGAAT GTTATCCGTC GTGGGAAGAA AAAATACTTT GTATTGACTT	3900
ACTAACTAT TCAACATTTA TCTATAAACA AAGGAGTTAA CCTCGAGAAA GGTAACCTCT	3960
TTTGCTGTT AATAACTCTC ATCTATCTAT TTTTAATAGA CAGGCTACGC AGGACAATGC	4020
GCAAGGTTGT TAGATTATGT AAGATAGAGA GATTGAAGG ACTGAACCAA TTAAATAAGC	4080
CAAAGCCAAT CAACTACTA TTTACGACAA CGGTATCCTG AATATTTTTC TTGATGAGTG	4140
TTTGCAAAGA TGATGATAAC GAATCCAACCT CTTGGAAGAA ATCCAAACGA TTATCTAACA	4200
ATAAGATATC ACTCATCTGC TTAGAAATAT CTGCACTCTC ATTCATCACC ACACCGATAT	4260
CTGATAGAGT TAAAGCCGCT GAGTCATTCA ATCCATCTCC AACCATCAAA ATAGTGTGAC	4320
CTGCTTTCTG CAGTTTCTCT ACTAACTCAA ATTTCCCATC AGGTTTCAAG TCTGTATAGA	4380
CCTGATCAAA GGGCAAATCT TTGACTAATT CCTCTGTCTT AATCAAGGTG TCTCCTGTTG	4440
CCAGAATCAA TTTTTTCCCC TGTGCCTTAA GTTTATCCAA GGCTGTTTTT GCTTCTTTTC	4500
TCAAAGGAGT ATGAATGCAG AACATTCCAA TCAATTCATT TTGATAAGCC AAGAATAAGA	4560
GATTGTAGTG ACTCTTGAC TCTTCAATTA AAGCATTTTG TTCTGAACTG ATATGAATCT	4620
GCTCATCCTG CATCAAGACA TAATCCCAA TAAGAACTGG TTGGCCATCT ATATGAGATT	4680
TGATCCCCTT GCTTGCGATA TATTGGAGTT TCCCATGCAT TTCCTCATGT TCAATTCCTT	4740
CTATCTCAGC TTGCTTGACG ATGGCATTAG CAATAGGATG ATAAATGTGT TCCTCAAGAC	4800
AGGCACTGAT TCTGAGAATA TCTTCTCAC TATAGTCTCC AAAAGGTAAC ACCTTTTCAA	4860
CTATAGGATA ACTAGTTGTG ATTGTTCTG TCTTATCAA CAAGAAAGTA TCAACTTCCA	4920
GATATTTCTC CCTGTTGTGG CCTCTGGCTG TCATCTCTGT GCTGG	4965

(2) INFORMATION FOR SEQ ID NO: 144:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 3232 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 144:

970

CAGGGGCGTA TTACGTGACA ATTCAATGTA GGCTGTCGCT ACTTGCGCCA AAACAAGGAT	60
TCGATAATGT CGGATGATAC TAACGATTAA ACCGAGCAGA AAGGATCCCA AAATTCCCCA	120
AACTGCAATA TGCAAGGTCA GAAAGAATGC CTTTTGATAT AGTGGTAGAT ATTGTTCAAC	180
AATGGATCAA TCCAAAAATA GAACCTCCCA TCTAGAAATA ATACAGTTAT TGTAGCACTT	240
AAAATCTTCT TTGGATAATA TCTATTTTTT ATTGCCGTTA TAAGGATTTT TATCATAGAC	300
ATAAAATTTT TGAAATTTCC AAACAAAATA TTTTAAAAGT TTTGAAAAAG AGTTAAGATA	360
TTTTTGTAAT ACACAAAGTA AACGCTTACT TATTAAGGAG GACATTTTAT GTCATACAAA	420
ACAAGCAATG CAGAAGGTCA TGTAGATTTT ATCAATACCT ATGATTTGGA GCCAATGGCG	480
CAACAAGTTA TTCCTAAAGC AGCATTTGGC TATATCGCTA GTGGGGCGGG AGATACTTTC	540
ACTTCTTTCC AGTGATTTTA GCGTCAGGTT CTTTTTAGTT TTTAAAGATT ATCCGTGAAT	600
TTCTTGCTTA TTTATGATAA AATGGGAGTG TCGCAAAAAA TGAATCATCG TATTCAATTT	660
TGAGTAAAC TAGGAGGATC CCATGTCTAC AGAACATATG GAAGAACTAA ATGACCAGCA	720
GATCGTTCGC CGTGAAAAAA TGGCTGCGCT CCGCGAACAA GGAATCGATC CTTTCGGAAA	780
ACGTTTTGAA CGTACTGCAA ATTCACAAGA ATTTAAAGAT AAATATGCCA ACCTCGATAA	840
AGAACAATTA CACGATAAAA ACGAAACAGC TACTATCGCA GGACGCTTGA TAACCAAACG	900
TGGTAAAGGA AAAGTTGGTT TTGCCACCT TCAAGACCGC GAAGGCCAGA TTCAGATCTA	960
CGTTCGTAAG GATGCTGTCT GTGAAGAAAA CTACGAAATC TTCAAAAAAG CAGACCTTGG	1020
TGACTTCCTT GGTGTCGAAG GTGAAGTGAT GCGTACGGAT ATGGGAGAAC TCTCTATCAA	1080
GGCAACCCAC ATCACACACT TGTCTAAGGC TCTTCGTCCT CTTCTGAGA AATTCCATGG	1140
TTTGACAGAC GTTGAAACAA TTTACCGTAA ACGTTACCTT GACTTGATTT CTAATCGTGA	1200
AAGCTTTGAA CGCTTTGTCA CTCGTTCAAA AATCATCTCT GAAATCCGTC GTTACCTTGA	1260
CCAAAAAGGA TTCCTTGAAG TGGAACACC TGTCTTCAT AATGAAGCCG GTGGTGCTGC	1320
TGCCCGTCCA TTTATCACCC ACCACAATGC CAAAAACATT GACATGGTGC TTCGTATCGC	1380
GACTGAGCTT CACTTAAAC GCCTTATCGT GGGTGGTATG GAACGTGTCT ATGAAATTGG	1440
CCGTATCTTC CGTAACGAAG GAATGGACGC TACTCATAAC CCTGAGTTCA CTTCTATCGA	1500
AGTTTACCAA GCTTATGCAG ACTTCCAAGA CATCATGGAC TTGACTGAAG GCATTATCCA	1560
ACACGCTGCT AAATCAGTCA AAGGTGATGG CCCAGTCAAC TACCAAGGTA CTGAAATCAA	1620
GATTAACGAA CCATTTAAGC GTGTTTATAT GGTGGATGCT ATCAGAGAAA TTAAGGTTGT	1680
CGATTTCTGG CAAGACATGA CTTTGAAGA AGCTAAAGCT ATCGCTGCTG AGAAGAAAGT	1740
TCCAGTTGAG AAACACTACA CTGAGGTTGG TCACATCATC AATGCCTTCT TTGAAGAGTT	1800

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TGTTGAAGAA ACTTTAATCC AACCAACCTT TGTCTATGGA CATCCAGTAG CTGTATCTCC	1860
ACTCGCTAAG AAAAATCCTG AAGACCAACG CTTTACTGAC CGTTTCGAGC TCTTTATCAT	1920
GACTAAGGAG TACGGTAATG CCTTTACTGA GTTGAACGAC CCAATCGACC AACTTAGCCG	1980
TTTTGAAGCC CAAGCTAAAG CCAAAGAACT TGGTGATGAT GAAGCGACAG GAATCGACTA	2040
TGACTACATT GAAGCTCTTG AATACGGTAT GCCACCAACA GGTGGTTTGG GAATCGGTAT	2100
CGACCGTCTC TGCATGCTCC TCACTGATAC AACAACTATC CGTGATGTAT TGCTCTTCCC	2160
AACAATGAAA TAAATTCTTA TCCTCTGGGT CTTATCAGAG GATTTTGTGA TTCAAAAAGA	2220
GACTGAATTT AAGGAGAAAA TGAAGTGTAG TATATTGAAA TTGAAATACT AACTTTGAT	2280
TTCTAAGACA TTGTTAGAAA TTGGTTTAAA TTCCCTAAGC AATTTGTGCA TGTTTTATTT	2340
CATTTTACGA TAGTACGCTG AAACCTTTTCA AAAAGTACTA GAAATTGACT TGGATTCCCC	2400
AATTGATTTG TTCAGATTCA CTATAAATAA AAAATTAATA AGTGGGATAG GAAGTTAGCG	2460
TCAACTAGGA TAGTATCTTG CTTAAACAGT ATATATGGGA TTGATATAAG TCCATAGGTC	2520
CTATTAGAGG ATGTTCTGGT GTCTTATTCA CTGTGTTTTT ATAGTATTAG TAGATAGAAT	2580
CAGCAAATAA AAACCCAAAT CATTCATACC TCTCTCAACT AGATGTAAC TACAAAACCC	2640
CTGACCTCAT GAGCCACTTT CTTCCTCCTC ATGAGGTCAG TTTTACTTTC TGCTGTTCCA	2700
GTATCGTTTT TCCTCGCTAG ATTTCCTCAA AAGGGCAGAC TCCTCCCTTG GTGCGTCACA	2760
CGATTTTTTC ATCTCGACTG TTCTTTAATG CATCATTAAC GACGCTTTTC TTCTAGGTGG	2820
TTCATAAGGA ACAGGAAGAT TCAGGTTGAC TTTTCTAATC CTAGAATAAA GTGCTGAAAA	2880
CAATTCGGAA TAGGCATAGA GACTAGACAA TTTGAGGAGC TGCTTGCCTC CTGTTCGAAC	2940
ACATTTTCCC ACCACGTGAA GAAAAAGATG GCGGAAGCGT TTGATTGTTA AAGTTTGGAA	3000
GTCACCTCCA GCTAGATGTT TGAGAAAAAG ATAGAGATTG TAGGCGATAC AGCTCATCAT	3060
CATACGAACT TCGTTTTTGA TTAAGGTTGA ACTATCCGTT TTATCGCCAA AAAATCCCTC	3120
CTTCATCTCC TTGATGAAAT TCTCGGCTTG ACCACGTCCA CGATAAAGCT GAAACTGGTC	3180
TTGGCTTGTT CCACTCGTCA TATTTGTAAC GAGAGAAATA ACATCGTAGA AC	3232

(2) INFORMATION FOR SEQ ID NO: 145:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 10711 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

972

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 145:

CCGGAGAAAA TGATGAAAAG TTCAAAATA TTTGCCCTTG CGGGCGTGAC ATTATTGGCG	60
GCGACTACTT TAGCTGCATG CTCTGGATCA GGTTCAGCA CTAAAGGTGA GAAGACATTC	120
TCATACATTT ATGAGACAGA CCCTGATAAC CTCAACTATT TGACAACTGC TAAGGCTGCG	180
ACACAAATAT TACCAGTAAC GTGGTTGATG GTTTGCTAGA AATGATCGC TACGGGAACT	240
TTGTGCCGTC TATGGCTGAG GATTGGTCTG TATCCAAGGA TGGATTGACT TACACTTATA	300
CTATCCGTAA GGATGCAAAA TGGTATACTT CTGAAGGTGA AGAATACGCG GCAGTCAAAG	360
CTCAAGACTT TGTAACAGGA TTAATAATG CTGCTGATAA AAAATCAGAT GCTCTTTACC	420
TTGTTCAAGA ATCAATCAAA GGGTTGGATG CCTATGTAAA AGGGGAAATC AAAGATTCT	480
CACAAGTAGG AATTAAGGCT CTGGATGAAC AGACAGTTCA GTACACTTTG AACAAACCAG	540
AAAGCTTCTG GAATTCTAAG ACAACCATGG GTGTGCTTGC GCCAGTTAAT GAAGAGTTTT	600
TGAATTCAAA AGGAGATGAT TTTGCCAAAG CTACGGATCC AAGTAGTCTC TTGTATAACG	660
GTCCTTATTT GTTGAAATCC ATTGTGACCA AATCCTCTGT TGAATTTGCG AAAAATCCGA	720
ACTACTGGGA TAAGGACAAT GTGCATGTTG ACAAAGTTAA ATTGTCATTC TGGGATGGTC	780
AAGATACCAG CAAACCTGCA GAAAACTTTA AAGATGGTAG CCTTACAGCA GCTCGTCTCT	840
ATCCAACAAG TGCAAGTTTC GCAGAACTTG AGAAGAGTAT GAAGGACAAT ATTGTCTATA	900
CTCAACAAGA CTCTATTACG TATCTAGTTG GTACAAATAT TGACCGTCAG TCCTATAAAT	960
ACACATCTAA GACCAGCGAC GAACAAAAGG CATCGACTAA AAAGGCTCTC TTAAACAAGG	1020
ATTTCCGTCA GGCTATTGCC TTTGGATTTC ACCGTACAGC CTATGCCTCT CAGTTGAATG	1080
GACAACTGG AGCAAGTAAA ATCTTGCCTA ATCTCTTTGT GCCACCAACA TTTGTTCAAG	1140
CAGATGGTAA AAACCTTGGC GATATGGTCA AAGAGAAATT GGTCACTTAT GGGGATGAAT	1200
GGAAGGATGT TAATCTTGCA GATTCTCAGG ATGGTCTTTA CAATCCAGAA AAAGCCAAGG	1260
CTGAATTTGC TAAAGCTAAA TCAGCCTTAC AAGCAGAAGG AGTCCAATTC CCAATTCATT	1320
TGGATATGCC AGTTGACCAA ACAGCAACTA CAAAAGTTCA GCGCGTCCAA TCTATGAAAC	1380
AATCCTTGGA AGCAACTTTA GGAGCTGATA ATGTCATTAT TGATATTCAA CAACTACAAA	1440
AAGACGAAGT AAACAATATT ACATATTTTG CTGAAAATGC TGCTGGCGAA GACTGGGATT	1500
TATCAGATAA TGTCGGTTGG GGTCCAGACT TTGCCGATCC ATCAACCTAC CTTGATATTA	1560
TCAAACCTTC TGTAGGAGAA AGTACTAAAA CATATTTAGG GTTTGACTCA GGGGAAGATA	1620
ATGTAGCTGC TAAAAAGTA GGTCTATATG ACTACGAAAA ATTGGTTACT GAGGCTGGTG	1680
ATGAGACTAC AGATGTTGCT AAACGCTATG ATAAATACGC TGCAGCCCAA GCTTGGTTGA	1740

973

CAGATAGTGC TTTGATTATT CCAACTACAT CTCGTACAGG GCGTCCAATC TTGTCTAAGA	1800
TGGTACCATT TACAATACCA TTTGCATTGT CAGGAAATAA AGGTACAAGT GAACCAGTCT	1860
TGTATAAATA CTTGGAACCTT CAAGACAAGG CAGTCACTGT AGATGAATAC CAAAAAGCTC	1920
AGGAAAAATG GATGAAAGAA AAAGAAGAGT CTAATAAAAA GGCTCAAGAA GATCTCGCAA	1980
AACATGTGAA ATAACTGTTG CAAAATATAA GAAAGGATTT AGTATTTCCC TTGAATGCTG	2040
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CCTCTTTTTG TCAGAATAGA GAAAATTTTT GTTAATTTTA CTTGTTTCCT ATTGCTTTCT	2160
CAGCTATTAT TTGTTATATT AAAAGTATAA TTATTTTTTA TTTATCAGAG TTAAGCATTG	2220
CACTTTCAGA GGAAGGAGTA TTTTTTAAAA AGAAAATGTA AACGTTTGCT CAAAAATGAA	2280
AGGATTTAGA AGTTTATGAA TAAAGGATTA TTTGAAAAAC GTTGTAATAA TAGTATTCGG	2340
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GTTCTTGCAG ATACCGTGCA GTCTGGTTCC ACGGCGAACT TACCAGCTGA TTTAGCTACT	2460
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GAAAAAGAAA AACCGGCTGA AGAAAAACCA AAAGAGGATA AACCTGCAGC TGCTAAACCT	2640
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ACAGTCACTA TCCGAGAAGA AAAAGGTGTC CGCTACAACC AACTATCCTC AACTGCTCAA	2760
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GGTGTCTTTT TGAAATTTAA AGATACCAAG AATAATGTTT TTGTCGGTTA TGACAAGGAT	2940
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GCTGCTCCTG AAACAGGATC AACAAACCGT CTCTCTATCA CTCTCAAGTC AGACGGTCAG	3060
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AATGACCATC TTAAAAATGA GAAGAAGATT CTTCTCAAGG CGGGCTCTTA TGACGATGAG	3180
CGAACAGTTG TTAGCGTTAA AACGGATAAC CAAGAGGGGG TAAAAACAGA GGATACCCCT	3240
GCTGAAAAAG AAACAGGTCC TGAAGTTGAT GATAGCAAGG TGACTTATGA CACGATTCAG	3300
TCTAAGGTCC TCAAAGCAGT GATTGACCAA GCCTTCCCTC GTGTCAAGGA ATACAGCTTG	3360
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CGAATCACCC CTGAAGTCAC TTATAAGAAA ATCAATGAGA CAACAGCAGA GTACTTGATG	3480

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GCCTATGACC TAGCTCATGG TCGTTTGGCA CGTTGGGAAG ATTTGAAGAA AAAACTTGGT	4560
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GAATCCAGT CAGGTCGTCG TGGTACTCAA GCAAGCAACT TGGAAATGCA TGAATTGCCA	6360
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TCGTTGTGGA TAGTCCACTT GTACGATTTG AATAGGAGTT GGTTCCTTAT GTATAACAGC	10380
CAAGCCCTGA GACAAATAGT AGTCGTTGGT AGCATTGATC ATCTTTTCAA AGGGTACCGA	10440
GCTCGAATTC GTAATCATGT CATAGCTGTT TCCTGTGTGA AATTGTTATC CGCTCACAAT	10500
TCCACACAAC ATACGAGCCG GAAGCATAAA GTGTAAAGCC TGGGGTGCCT AATGAGTGAG	10560

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CTAACTCACA TTAATTGCGT TCGCTCACT GCCCGCTTTC CAGTCGGGAA ACCTGTCGTG 10620
CCAGCTGCAT TAATGAATCG GCCAACGCGC GGGGAGAGGC GGTTCGCTA TTGGGCGCTC 10680
TTCCGCTTCC TCGCTCACTG ACTCGCTGCG C 10711

(2) INFORMATION FOR SEQ ID NO: 146:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 11887 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: double
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 146:

TACATTCATT CCATCGGCTA CTCCATAATA CTTAGATAAA ACCATAGCTG AAGTCGAATA 60
CGGATACTGT AAAGTATTAT CAATTTTAAT CAAATCATCA TTACCGATAA TACTTCTGAT 120
TGCTTTTGGT AGTATGAACC ATACGTTGGT GAAATCTCAG ATAATGAAGA ATCATTAGAC 180
TCTGGACCTT TTTCTAGTGT CTCACCTACC TCATATTCTT CACCCTTACT AGAAATAACA 240
CTCAAAGCAG ATACTGTCGA TAACTGGCTA GCCAATAAAG TACTCGCAAT AATTGAAATA 300
CCCAATTTTT TATAAACAGT TTTCTTCATT ATTGTATCCT CCTAATGTAA TTATAGCGTA 360
CTATTCTAAA TTTCTTAATC TACTATAGAA TCAAGAAATC TACCACCTTC TTAAATACC 420
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TAAAGCATGT TACCCAAGTG GGATTCGTTT TGGAGTAGTC TCGCAGAGTC CAGCCAATGG 600
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GAGTATTGGT CTTCTCTTTT CTTAACAAC TGTGGTCAAT AGCGACACGT CTCAGCCAGA 720
TATTATCTGA TAGGCTCCAT TTTATACTCA ATGAAAATCA AAGAGCAAAC TAGGAAGCTA 780
GCCGCAGTTG CTCAAAACAC TGTTTGAAGG TTGCAGATAG AGCTGACGTG GTTTGAAGAG 840
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TAGCTTAGGC AAATCGGTTT CCTTTAGATA AGACTGCATT GCTTTCAAAT AGTTAGCAGC 1020
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AGTCTTTTGC TGCTTCTAGC TCCTCAAGTA AATCTGCTAA ACTCATCTAA AACTCCTCTT 1260

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CTACATCGTC TTGGAGGTCA AAGTAGCTTT TCAAGCCCAA TCGGACCATT TCATGGTCAT	1860
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980
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GGAACCATG TCTCCTCGCT TAAGCAAGAC AGCGCTAGTC AGCTTGAACA AGAGCTCCTG	5280
ATCAACAGAA ACATCATACA GAGCCAGTAA AGCCTTGACA ACCAAGACAA CGACGCTGCC	5340
ACTAGAACCT AGACCAAAT TTTCCCCTTC TCGTTCCATT TTGCCACAGA TTTCTAGAGA	5400
AAAAGGTCTT AAATTCTGAC CACGAACAGC GAGGAAGTCT CCCATCAAAG CAATCGTTTC	5460
TTGAATCAAG CTATAGTCAG GATTAGGCCT TAAGTCCACT GCGAAATCAA ACATATCTGA	5520
ATAGATACGG TAGCTGTCAG AAAAAGCAAT CTCAGCCCTC ATATAGATGG GAATATCCTT	5580
TATCAAAGCT AACTGCCCTG GCTCTAAAAT AGCATATTCA CCTGCCCAAT AGAGTTTTC	5640
GCAAGTTTAA ACAGCAATCA TCTTGACTCA AATCCTTTGT TTTTGACACA ATCAAGCGAT	5700
AACGATGACC GAAAATTTCT GATAAATGCT CCAAGTCTTT CTCCTGACAG AAGACCTTAA	5760
CATTGGGACC AGCATCCATG GTAAAGTAGC AGGCCTCTCC TTTCTCACGA AGCTGGCGAA	5820
CAAAGGCCAT AGCCTCATAA GAGGCATCCG TCAGATAAGA AAAGGCTGGA CTAGCAGTCT	5880
TTGTCTAGC ATGCATAGCC AGGGCATTTT TCTCCGTAA TTCTCCAATC TTGGCAAAAT	5940
CATTTTCCTT GAGATAAATC AGCATATCCT GATAGTCCTT CTCAGACTGA CGAACCCAGT	6000
CGTCGAAAGT CGTCGAGGTT TCCACACAAA GTTTCATCCC GTCACGGCTA GAGATTGGTT	6060
TTTTCTTGTC CTCTAGCACC AACATAATCA TAGCTAGTTT CAAGTCTGTC TCTACAGGGT	6120
AAATTTCTCC ACTATCCTTA TCCCAGGCTC CTAGTGGTCC ATAAAACTC CGAGAAGAAG	6180
AACCTGAGGC AAATTTGGCT TCCTGTGCCA ACTGACTTCT ATCCAATCCA AGCTTGAAAT	6240
AAGCATTACA AGCCTTGACC AGGGCGGACA AACCCTAGA ACTTGAGGAC AGACCCGCTG	6300
CCGTAGGCAT ATTGTTTTGA GTATCGATAC GGACAAAGCC CTCACCAGCT GGACGATAAC	6360
GGTCAATAAT CTTACTCATC TTGGCATGCT CGACCTCATT TTGTAGCTGA CCATTGATGT	6420
AAAATTCGTC AGCTGTTACA TTGGCTGGTA AAGGCGACAA GGTCGTCTCT GTATACATAT	6480
TTTCCAAAGT TAGAGAAATA CTGCTAGTAG CAGGCACCAT CTCTTTTCT TTTTCTTTT	6540

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CCCAATATTT GATAATAGCA ATATTTGCGT AGGAACGTAC TGTTACAGGC TCTCTATCCA	6600
TGTCTGAACA GCTCCTTTCT CTTCTAATCT TTCTGCTAGT TCTTGTGCGT GTGTCAAATT	6660
GGTTACCAAG GCTATGATAC AACCTCCTAG CCCACCACCG CTCATCTTGG CACCCAGAGC	6720
ACCATGGCTA AGAGTCGTTT CAACCAAAAA GTCTGCCTCA GGGCTACTGA CTCCAATTTT	6780
TTTTAAATGT AAATGCGCTT GACTGAGGAT TTGTCCCAGT CCTTCAGCAT CTTTTTGTGA	6840
AATCGCAACT TCTGCTTGCT GGGTTAATTC TCCCAAGGCA TGCAAAAACG GTAGGGCATC	6900
CTTGCCCTTA TTTTGAACCA CTTGGATGGC TTCACGAGTA TGACCATAAA CACCCGTATC	6960
GGCAATCACC AAATAGGCGG ATAAATCCAT CTCAAGTTCT GTAAATCCTA CGTTCTTGAT	7020
AAAGCGAATA GGTGGTCAC TAAGACAGGT CTTAGCATCC AAACCACTAG GATTCATATG	7080
GGCAATCATT TCAGCTCGAT TGACCAAGAT TTCTAGTACA TCATGAGGCA GATCAGCCTG	7140
ATAGTAGTCA AATACTGCAC GAATGGCCGC TATGCTGATA GCCGCTGACG AACCCATCCC	7200
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ATACTCCAGT GAGGCATAAA CCGCCATGGA CAAGGTATCC TCCTCATAAA GGCGCCAAGG	7320
ACTCTCTGCA GGAACCTACCT TACAGGTCAC CTCCACCTCC AAAAGAGGCA GGGAAATGGC	7380
AGGATAACCG TAAACGACCG CATGTTCCCC TATTAAAATT ATCTTACTAT GTGCCTGACC	7440
GACACCAACT TTTTTGTCA TTTTTCTTT TTAGTAGACG AAAAAACGTC TTATTTTCA	7500
TACAAGTATT AATCTTTCC TATCTATTTT ATTATATTTT CACAAAAAA GCGATTGTTT	7560
CCATTCACAA TCGCTTCTTT CATTATTGAA CCCATTCGCC ATTATAGTTG ACAGAATAGC	7620
CATCTACGGT CGTATTCACT GCCAAGGCAC CTGAGCGCTA TAAGCGTAGT ACCATCTGCC	7680
ATTGACCTGG AACCAACCTG TCGTCATAGA ACGACGAAAG AAATCCATA CCATTAAGTA	7740
AAGAGGAAAG TCGTGAGGGA GCATGCGCCA TTGACAACCT GTTTTAGTGA CGTACAAAGT	7800
CTCATTAACA AGTACTCGTT TCGGCCATTT ATAGGTGCGG TGTTTGAGGA AATAGGGTTC	7860
AATCTTCGCC CATTCTTGAT CGTTTAAATC AGTATCATAT GCTTTGCGTA TCATAACTCT	7920
AGCTTAACAT TTTTTGTGA ATACAGGTTT TAAATAATCG ACCACGAAAA TTTCTTAAGT	7980
GGAAAACGCC TTATGAAGTA TGCTACGGGA AAGTTATGCA CTTAATTTGA CAATTCAAGA	8040
TGTAAAAATA TATACTATAG TAGATTGAAA CTAGAATAGT ACACCTCTAC TTCTAAAATA	8100
TTGTTAGAAA TCGATTGAC TGTCTGATC GATTATCCT GTTATTATCT CATTTTACTA	8160
TAATATTTGA TAAGTTATCC TAAAAGTATT ATTATGTTGT TGTGTTATAG ATTGATTGAA	8220
TCTAACTAAA GGATCCTATT CAATTACTAG AACTATCACA TACTCAAGGT CAGCTCACAG	8280
ATGAGCAACT ATTTTGGTTA CAATGTCTAC TAAATTTAAG TCAAACAAAT AATTTAGTCA	8340

AAATTAAAAA AATAGAGGAA CATAAATATG ATTACAAAAC AGAATGTAAT AGTGTCTAC	8400
AATTTTACT AGATAAACT GTAAATTCTG AAGGAAGGAT CACTTCTTCA ACAGAATTG	8460
GAAATTCGT AAGTAATTTA TCATTCCAAC ACGGAATAGC TGGACTACTG TTTCTCTAA	8520
ATAAATTGTA CCCCCAGAA CTGGATTCTA AAATACTCTC TATCATCAAG AAGGCAGTGA	8580
CAATTAGAAC GACACACACA TATGAATATC AATACTCACT GCTATTTGGT GATGCAGGCT	8640
ATCTATGGTT ACTCCTACAT TTATTTCTA TCAGTAAAAA TCAATACTAT CTACAATTAG	8700
CAAACGTCAC CGCTAAAAA TTAATAGAGA ATTATGATAC TCTAGAGGAA ATAGACTTTG	8760
CATTGGGAAA ATCTGGTGTC CTATTATCAT TAATAAATA CTATCAATTT ACCAATGACA	8820
ATACTCTTAA AATTTTCATC CACAATAGTA TAGGGGAAAT TTATCATTAT TTCCTACAAA	8880
GAGATACAGC CAAAGAAAGC ATTTTAGACT ATAGCTTTGC TCATGGATAT TGTGGAATTG	8940
CATATGCTTT ATTTGCCTAT TCTAAAGTCT TAGAACCTTC TATGTTTTAT AATGATCTCC	9000
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TAGGAAATTT ACAACTTTCT TGGTGCAAAG GAATTTCCGG AATAATCTTA TATCTTTGTA	9120
TGTACGATTG TGACGGAAAC AAAGATATTA TTAGTAAATA TCAAGAATTT GTTTTAAACC	9180
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AACGAGATGA TCACGGTTTA CTGATGTTTC AAGGAGATAG TGGTAAAGCA GATTTGTTTG	9360
ACTTCGGAAT AGGAAGCATG GGGTATATTG GTGTCTATTA AATAATAAAT TCCCATTGCA	9420
TGTGCAGACA TAAGGAGAAA AGTATGAAAT TATTTGGAC AAACAACATA TATAGACAGT	9480
TGCTGCTAAA CAGCTGTTTT TCATCATTCG GCGACAGTAT TTTCTACCTC GCCATTATCA	9540
ATTATGTGGC TCAGTACAAT TTCGCTCCGC TAGCGATTTT ACTGATTTCC ATTTAGAGA	9600
TGGTTCCCT ACTATCGCAA CTCTTTCTCG GGATTCTAGG AGATTTTCAA GAAAATAGAG	9660
TCAAACACGC ACTCTGGATT GCCAAAATCA AAATCCTGCT CTACGCTATT TTGACAGTAT	9720
TTCTCGTCTT GTCGCCCTTT TCATTAGTTT CAGTCATTAT GATTGTCATC ATCAACCTCA	9780
TCTCTGACAC CTTGAGCTAC CTGTCTGCCT ACATGATGAA CGCCCTCTAC ATCAGTGTA	9840
TTAAGGACGA CCTGCATGAT GCCATGGGGT TCAGGCAGTC TCTGATGAGG GTTGTCCGTA	9900
TTGTGCGCAA TCTGGCTGGC GCATTCCTTA TCAATGTTAT AAGTATTCAA ACTATTTCCC	9960
TTATCAACAC TCTGACTTTT GTCATTGCCT TTTGGGCCT GTATGTTATT CGACATACCT	10020
TGTATGAGGT TGA AAAAAGA ATTGAAATGT CACATACAGC ACTGAGTTTT AAGAAATATT	10080

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TTCAACATCT TAAACAGTCG CTGGCTGTGC TCCTGAGGTT AAAAGATACC GTCATACTAC	10140
TGTTTCTGAC GACCAATATG ATTGCCATCT TGGATGTGTC CCCTCGGCTG ATTGCCCTCC	10200
GCTTCATCCA ACAGACACTA GCACAACTGA GCATTGGGCA ACTCCTCGCC CTGCTCTCCA	10260
TCATCATGTC TTGTGGAGCT ATCCTTGGCA ATATGACCAG CAGTAATCTA TTTAAAAATA	10320
TCCGTTTCAC GCACCTCTTG GTTTTCTGTG AGATTTCCCT ATTGACTCTA ATAAC TAGTA	10380
TCCTTTGTCA AGCCTATATC GTAATTTTCA TGACCAGTTT CATCAGTTCT ACGATTATCG	10440
GCATTCTCAG CCCTCGCCTA CAAGCAGCTG TCTTTGCCCA TATCCCCAGT GACAAGATGG	10500
GGACGGTGGG CTCTGCTCTG AGCAGAGTGG ACATTCTCGC CCCGTCCCTG CTCTCCCTAT	10560
TAGCCCTATC CATAGCATCG GGCCTTTCGG TGCAGTTAGC ATTGATATTT TTGTATCTTA	10620
TTTAAATTGC TCTTATCTTT TGTCAATGGT TAGTCAAGTT CAACACTCAT AACTAACGAA	10680
AAAGCATGTG TAGATTTTAC ATGCTTTTAA TCTCCCCAAT CGTCAGGTCA AGTACAACAA	10740
AGTCACTTCT TTGATTAAGC GAGTGTCTA ATATAATTAT AAGCGCCCTG TCATTACCGA	10800
ACCCATTTCG CATTATAGTT GACAGAATAG CCATCTACGG TCGTATTCAC TGCCAAAGCA	10860
CCTGAGCTAT AAGCATAGTA CCAGTTGCCA TTGACCTGGA ACCAACCTGT CTTTATGTCT	10920
CCATTACCTG CATTTAGGTA GTACCAAGTT GAACCATCTT GATACCAACC AGTTGCCATA	10980
GCTCCTGATG AACGGAGATA GTACCATTTG TTCCCAAGGT TTTGCCAACC TGTTTTTATA	11040
TCGCCATTTG GGTGGTCTAA ATAATACCAA GTGGTACCTT CCTGATACCA GCCAGTGGCC	11100
ATTGCTCCTG AGGAACGGAG GTAGTACCAC TTATTACCTA GATATTGCCA ACCTGTTTGC	11160
ATAATACCAG TTGTTGGATC TAGGTAGTAC CAAGTCGAAT CATCGTTTAT CCACCCCGCA	11220
CGTCTTTCAC CACCAAGGTA GTTTTCTCCA TTAATTTCCG TCTTAGCTAG ATAATACCAG	11280
TTAGACTGAT CATAAAGCCA ACCTGTCTCT AAAGAATGAT TTTGATTAAA GTAATAGTTC	11340
GTATAATAAC GCTTCTCTTC TTTATCTTCT GAATCTTCAC GTTTTCCCC GTACTTTCTT	11400
CCAACACTGT CTTTAGTTTT AATCTCTAAT GTTTTCCAAC CAACAACTC TTGTAGCACT	11460
CCATTTTTAT CGAAGTAGTA CCACTCTGAC TTTGGAAAAC CTTCTAATCT GATACCATTT	11520
GGGTAAGGAC CAATTGTACT ACCTTTAGAT GGAAACGGGA TATATTGCCA GCCGACAACC	11580
ATCTCTCCAG ATAGAGAATC AAAATAATAG TACTTACCAT CAATCACTCG CCAGTAGGTT	11640
TCTTTGAGGT CCCCCTTTT GTAGTAGGTT CTTCCGTTTT CTGGACAAA CTGCCATCCT	11700
TCAGAATCAT CTGCAATAC TGTACTGGTC CCTAGCAAAC CAAAGAAAAA TACTGTCAGT	11760
CCAACCTGCA TAGTTTTTTT CAAAATTTTC ATCTATATAC CCTCCAATAT TAAATCCACT	11820
CACCAGATGA GCGAAATTA TAACTTTTAC CATCGATAGT TTGGCTACCT GTAACCATTG	11880

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CTCCAGG

11887

(2) INFORMATION FOR SEQ ID NO: 147:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 11340 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: double
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 147:

CCGGTATGTT CTGGAATACT ACCAATCTAA GCTGGCTGTG CCCTACAGTT TTACAACCCT	60
GTACGAATAC CTTAAGGAAT ATGACCGATT TTTCAGCTGG GTTTTGGAGT CTGGTATTTC	120
AAACGCTGAT AAAATATCCG ATATTCCTTT ATCAGTTTTG GAAAATATGT CTAAGAAAGA	180
CATGGAATCC TTTATCCTTT ATCTACGTGA ACGTCCCTTG CTGAATGCTA ATACAACAAA	240
ACAAGGTGTT TCACAGACAA CTATCAATCG AACCTTATCA GCACCTTCTA GTCTTTACAA	300
GTATCTAACC GAGGAGGTTG AAAACGATCA GGGGGAACCT TATTTCTATC GTAATGTAAT	360
GAAAAAAGTT TCCACCAAGA AAAAGAAAGA AACCCTTGCT GCCAGAGCTG AAAATATCAA	420
GCAAAACTC TTTCTAGGTG ATGAAACAGA AGGTTTTCTA ACTTATATCG ATCAAGAGCA	480
CCCACAACAG CTTTCAAATC GAGCTCTCTC ATCATTCAAC AAAAATAAAG AACGAGATTT	540
AGCCATTATT GCCCTTCTCT TGGCATCTGG TGTCGCTTA TCTGAAGCTG TTAATCTAGA	600
TCTAAGAGAT CTCAATCTAA AAATGATGGT TATTGATGTT ACTCGAAAAG GTTGCAAACG	660
TGACTCAGTC AATGTCGCTG CTTTTGCTAA ACCTTATTTA GAGAATTATC TGGCCATTCTG	720
GAATCAACGC TATAAAACGG AAAAAACAGA TACAGCCCTT TTTTAACTC TCTACAGAGG	780
TGTCCTAAT CGTATCGATG CTTCTAGCGT TGAGAAAATG GTTGCTAAAT ACTCAGAGGA	840
TTTTAAAGTG CGTGTAACAC CCCATAAACT GCGCCATACA CTAGCAACTA GGCTCTATGA	900
TGCGACTAAA TCACAAGTTT TAGTCAGTCA CCAACTAGGA CATGCTAGCA CACAAGTCAC	960
TGACCTCTAT ACCCATATTG TTAGTGATGA ACAAAGAAT GCTCTGGATA GTTTATGATT	1020
TTACGTATTT TAAATTATGT AAATAAATAT CAAAAAAGA AGTTGGCCAA CTTCTTTTTG	1080
ATTTATCCAA CTACCGCTTC AGCGATTCTT TCACGGCTAA TACCAGCGAA GTAGCGTGTG	1140
ATATCAATGG TTTTLAGCGC CTTAAGAACA TCTTCGCGTT CGTATTTTAC CCCACGAAGG	1200
ACATCTTCTA CTGCAGCAAC GTCTTCAATA CCAAAGAAGT CACCATAAAT CTTGATGTCT	1260
TGGATTTTTG ATTCAGTAAC GTTAGCAAAG ACTTCAACCT TACCACTAGT GAATTTGATT	1320

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CCACGACGGA CGTTAAATTC AGGTGATTTA CCATAGTTCC AGTCCCAAGT TCCAAACTTA	1380
GTATCCTTGA TCGGATTGAT TTCGGCCAAT TCTTCTTCTG AAAAGACGTA TTCAGTCATC	1440
TCTGGGTACT CTTTTTTCAT GTATTCCAAG AGTAAATCAC GGAATTTTTC GACTGTGATT	1500
TTTTTTGGTA ATTCATTGAT AATATTGGTT ACACGGGCAC GGACGGATTT CACACCTTTT	1560
GATTCAAATT TATCTTTTGA AACCTTAAGG GCATTTGCGA GGACTGACAA ATCAACGTCA	1620
AAGAGCAAGC AACCGTGGTG CATGATACGG CCGTTGATAT AGGCTTGGGC ATTGCCACAG	1680
AACTTCTTAC CATCAATCTC AAGGTCATTA CGACCTGTGA ACTCAGCTTT AACCCCAAGT	1740
TGAGCCAGGG TATTGATAAC CGGAGTTGAG AAGCTCTTGA AGTCAAATGC CTTATTTTCA	1800
TCTTCTTTGG AGATGATCGT GTAGTTGAGG TTATTTAAAT CGTGGTAAAC AGCTCCACCA	1860
CCACTAATAC GGCGAACTAC CTCAATACCA TTTTCGCGAA CATAATCACG GTTGATTTCT	1920
TCGATAGTGT TCTGGTGACG ACCAACAATG ATAGATGGCT TGTTAATCCA AAGTAGGAAG	1980
ATTTGATCCT CATCCAAAAG GTGTTTAAAG GCGTATTCTT CCAAGGCAAT ATTAAAAGCA	2040
GTGTCATTG AATGATTGAT AATGTATTTT ATGATATCCC TTTACTTTAT ATGATAGAAA	2100
CTGGAAATAA CCTTCCAGTC TAATCTATCT TCGTTTATT TTTCTTAGG TGAATGGATG	2160
GCCATTCCTA GAACATCTGC AAACGCTTCG TACATCACTT CAGAGTAAAG TGGGTGCCCCG	2220
TGGATGGTCT TCAGCATTTT CTCAACAGTG ATTTCCATTT CGATGATGCT TGATGCTTCG	2280
TTTATTAATT CTGCGGCTGC AGGACCAATA ATGTGTACAC CAAGGATTTT TCCGTATTTT	2340
TTATCAGCGA TAACTTTTAC GAAACCTTGA GCTGCGTCAG ATGCAATAGC ACGACCGTTA	2400
GCAGCAAAGT TAACTTACC GATGGCAACA TCGTATTTCT CACGGGCTTG TTCTTCTGTC	2460
AAACCTACTG CTGCTACTTC AGGGAGAGTG TAGATGGCTG CAGGAGTCAA ATTCAATTTG	2520
GCAACTGCAT GATTTCTTTT AAGGGCATTT TCAGCGGAAA CTTACCCCAT GCGGAAAGCT	2580
GCGTGAGCCA ACATCTTAGT ACCGTTGATG TCACCTGGTG CATAAATGCC TGGAACTGAA	2640
GTTTCCATGT ATTCGTTGAC CTTGATACAA CCACGATCCA ATTCAAACTC AACCTCTCTA	2700
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TCTTTTCCTT CAACCTTGAT ACGAAGTTGA CCATTTTCCT CAATGATTTT TTGCAGTTTA	2820
GTACCAGTCA AGATGGTCAT TCCTTTACGC TCAAGAATCA AGCGAAGGTT CTTAGAAACT	2880
TCCACATCCA TAGCTGGAAC TATACGGTCC ATCATTTTGA TAACAGTCAC TTTTGAACCA	2940
AATGTCATGA AGGCCTGACC GAGTTGATA CCGACAATC CACCACCGAT GATAACAAGG	3000
CTTCTGGCA CTTCTGTCAT TTCAAGAATG TCATCACTAG TCATGACAAG TGGAGATTCC	3060
ATACCAGGGA CGTTGATCTT GTTGACTTTT GAACCACCAG CAAGAATGAT TTTCTTGGTT	3120

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TCAAGCAATT CAGAACCATT TACCAAGACG TTCTTGCTT TAGTGATTGT ACCAATTCCT	3180
TTATGAACAG TAACTCCGTA GCTACGAAGA AGTCCTGCAA CACCACCAAC AAGAGTATTA	3240
ACAACTTTAG ATTTAGTTTC TAAAAGTTTT TCCATATCAA CAGTGAAGTT AGGATTTTCA	3300
ATCACGATAC CACGATTTGC AGCATGACCG ATATTTTCAA TAATTTCAGC GTTATGAAGG	3360
TAGGTCTTGG TTGGAATACA TCCACGGTTT AAGCAGGTTT CACCAAGTTC AGATTTCTCA	3420
ACAAGGGCAA CCTTACCGCC GAATTGGGCA GCTTTAATGG CTGCAACATA ACCAGCAGGA	3480
CCTCCACCAA TCACAACGAT ATCAAAAGCA TCATCGCTCT TACCATCATC GTTGAAGGTA	3540
CTTGCTACAG GTACAGGGCT AGCTTCTGGC GATGCTGCTC CAGCTGTTGG GATGTTTTCC	3600
CTTTCTTCAC CAAGGTAACC GATAACTTCC GTTACAGGGA CAGTTTCACC ATCTCCTTTG	3660
AGAATGGCAA TCAAGTACCC ATCTTCTTCG GCTTCCAATT CCATGCTGAC TTTATCAGTC	3720
ATGATTTCCA AAAGGATTTT TCCTTCTTTT ACAAATTCCTC CGACTTTTTT ATTCCATTGG	3780
ACGATTTGTC CTTCTGTCAT ATCCACGCCG GCTTTTGGCA TAATTACTTC TAAGGCCATG	3840
TCTTCCTTCC TTTATCTATA TCTTAAAAAT GAATACTCTT GCTCTTAAAT TAACATTGAG	3900
ATTGGCGTTT CAATCAACTC TTTCAAGTCC TTCATAAACT TAGCACCAGC CATACCATCT	3960
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GAATTTTGTA ACTCACTTGG AGCCAATTTA CCATCCAAGG TACGGCCAAT AACATCCTTA	4200
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AATCCATTAT CCATCCCAAC TGCCATGGCA AGATTGACAT AGTTGTGAGT GATAATAGTC	4320
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GCAAGCGAAA GAAGGTCTGT TACAGTAGTC TTCTTCCCAG TTGCTTCCAT GATTGGCTCA	4440
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GTTGGCGCAG TCAAGTAAGA TTCAACCATG CGTTGGGCAA TAACCTTACG CATTGGTGTC	4560
ATTGGAATAC GCTCGATTTT ACCATATGGT GTTACGTTAT CAGGGACTTC TTCCACTTTT	4620
TCAATCTGAG CAGGAGATTT GATGCTATCG TTTTCGATAT TTTAGGAAG CAGGGCCAAA	4680
ACATCCTTCT TCATGATTTT ACCACGATGA CCGGTTCTTT GGATTTCTCTG CCAAGCAATG	4740
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TAAGTTTCCA CGTCTTCTTT GTGGACACGA CCGTTTGCAC CTGAGCCAGA AACGTCGTAG	4860

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AGGTTTATCC CTAAATCATC CGCTAACTTT CTAGCTGCAG GAGTCGCTCT TAGCTTGTC	4920
TCAGCCATGA CCTCTCCAAT TCTATTTATG ATACAAAGGG CGTCAAAAGC GACTGAAAA	4980
TAGGAAATCG ACGATGGCTT CGATGAAGCC AAGGAGATTT ATCTTTTTC CGATCTTTTA	5040
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AGTTTTTCGG ATTGCATCTT TGATACTTTC AACTGTTGGA ATCATTGCAT TTTCTAGGTT	5220
TTGTGCATAA GGCATCGGCA CATCTTCTCC TGCACAACGG CGAATTGGTG CATCTAGATA	5280
GTCAAATGCT TCTGATTCTG AAATAATAGC TGAAATTTCA CCGATATAGC CACTTGTTTT	5340
GTGGGCATCG TTGACCAGAA CAACCTTACC AGTCTTCTTC ACTGAGTTTA TGATGATATC	5400
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TAATTCTTCA GCAGCTTGAA CCACACGGCG AAGCATTTTT CCATAAGTAA CAACTGTTAC	5520
ATCCGTTCTT TGGCGTTTGA TTCCACCAAC CCCAAGTGGA ATTGTGTAGT CTGGATCAAC	5580
TGGCACTTCC CCTTTTTGGT TAAATTTCTGA CTTGTACTCA AGTATAATAA CTGGGTTGTT	5640
ATCACGGATA GAAGACTTAA GCAGGCCTTT CATGTCCGCA GGTGTTCCAG GTGCCACAAC	5700
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CATGTAACGT GTTTTAGCAG CTTGGTTGAC GATATTGTCC ATGGCAATAA CAGAGAAGTC	5880
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CATTCCAACA GAAGTACCGA AGTCTCCTCC GAAGACACCG ACGTCTTCTC CCATCAAGAA	6060
CACATTTTCA TCGCGACGCA TTTCTCAGA CATAGCAAGG ATAATGGTGT CACGGAAGGA	6120
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CTTTACTTGC GCTTGGATTT CTTCCAATTC TTCGGCACTT GCAATGTTAT TTTCAATAAG	6300
GTAATTGCGG AGGTTTTCTGA TTGGATCTTT TTGTTTCCAC AATTCCACTT CTTACGCGT	6360
ACGATATTTA CCAGGGTCAG ATGATGAGTG ACCGAGCCAG CGATAAGTTA CACTTTCAAT	6420
CAAGACTGGA CCATTGCCAC TCGGAACATG GTCCACAGCT TTCTGAAATC CTTCATAGAC	6480
ATCGATGACA TTGTTACCGT CTTGATGAA CATTCCAGGA ATTCCATAAG CGGCGCTACG	6540
TTGATGGATA TGTTCTATAT TGGTCATTTT CTTGATATCC GCAGAGATAC CGTAACCGTT	6600
GTTAATGCAA TAGAAAATGA CTGGCAGGTT CCAGATAGAA GCCATGTTCA CTGCTTCGTG	6660

GAAAACACCT TCATTGGTCG CACCATCTCC AAAGAAGCAG ACAACGATTT TACCGGTATT	6720
TTGCATTTGC TGA CTGAGGG CTGCACCGAC AGCGATCCCC ATACCACCAC CTACGATACC	6780
ATTGGCACCA AGGTTCCCAG CATCAAGGTC AGCGATATGC ATAGATCCAC CTTTCCCTTT	6840
ACAGGTTCCA GTGTATTTAC CAAGGATTTT AGCCATCATT CCGTTGAGGT CAATCCCTTT	6900
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TAACATAGCC CCCACGTTAG CTGCCTCTTC ACCAACAGAA AAGTGCCTCA TTCCTGGCAC	7020
TTTCCCTTTC TTTACTAATT GTGCAATTTT TAAGTCCATG CGACGGATTT CTTCCATCTT	7080
ACGGAACATT TCTAGCAAAA GATTTTATC TAAAGTTGAC ATCTTCTTGC CTTTCTAACT	7140
TTCTTCTTAC CTTACTATTT TACCGCTTTT GGCAATACT GTCAAAGTTT TTCTAAAAGA	7200
AATTTACAA AATAAAAAAG AAAACCCCGT GAAAACAAGG GATTTTCTTG TCAAGAATAT	7260
TTTTTCACAA ACTTTT TAGC ATTTGGATTT TGCTAAAGAT TCAAATCTCT TCATAATCAC	7320
AGTTAAACGC CAACGGTAGA GCGCCCCGCT CACAATCAAA CTAATAATCA AGCCGATCCA	7380
GTAAGAATAA GCTCCAAAAT CTGTTAGGGA ATCAAATAGC GTATCACAGG GATTGCTACG	7440
CCCCAATAAC CAAGCAAACC AAGGTAAAAA GGAATAACTG TATCCTTATA CCCCCGAAA	7500
ATTCCTGAA GCGGCGCCGC AAAGGTATCT GCTAACTGGA AGAAAAGACT ATAAGTTAA	7560
AAACGCACTG TCAAATCGAT AAATTTTGGG TCGTTACCAT AAAGACTGGC CACATTTCCC	7620
CTAAAAATGT AAAGGAAGGT TAAGGTGAAG GCCGCAAAA TGAGGGCAGT CCATCTTCCT	7680
AGACCAATAT AGGTTTTCGC ATCATCAAAT CGCTTGCTC CCACTTCATA GGAAACGACA	7740
ATAGCCATAG CCGATGAGAT ACTCATAGGA AAGGCGTACA TAAGACTTGA AAAGTTCATA	7800
GCTGACTGGT GACTAGCTAT AATCAAGGGC GAAAACCTAG CCATAATCAA GCCAACCCT	7860
GAAAAGATAG CCACTTCCGC GAAGACAGTT CCCCCAATAG GCAGACCTAA ACGAACTCCT	7920
TCCTTAATTT TATCCATATT AAGTGAATT CGTTTCTCAA GGTGTAAGGC TTTGAGCTTC	7980
TCCTGTTTAA ATAAAACCAG AACAGAAATC CCAAGCAAGA CCCAGTAGGC CAAGGATGTT	8040
CCTAAACCAG CACCAGCCCC TCCAGTTCT GGAACACCAA AGGCACCGTA AATCAAGAGA	8100
TAGTTAAATC CGCTATTGAG AGGGAGTAAC AAAAGCATGA GGTACATGGA CAGTTTGGTC	8160
AAGCCCAGCG AATCCAGCAA GGAACGAATG ACGCTAAAGA GCAACAAGGG GATAATCCCC	8220
ATAGATAAAA ACCAAAGATA GCGAACCCT ACTGCCGCTA CTGCTGCTTC TAACCCAATA	8280
TGATTCAAGA TTATTGGTGC CAAGAAAAGT ACCATCCCCA GCAAGACCAC AGATAGGCCC	8340
AAGGCCAAT AATAAATTG GTAAAAATCA GACGCAACTT CTTCTTTTTT GCCTCGACCA	8400

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AGATGGTGAC CAATGATAGG CACCAAGGCT GACACAATCC CTGTTAGAAA TGTAAGAAA 8460
GGATTCCAGA TACTGGTTGC CATAGATACA CCAGCCAAGT CCATAGTGTT GTATTGACCT 8520
GTCATTGCAG TATCAACAAA AGAGGCAGAA TAATTGGCAA ATTGGTAGAT CAGGATTGGG 8580
AAGAAAATTT TTAATAATAA TACTAACTTC TCTCGTAAAC ACTTTGTCTT ATACATACTT 8640
CTCTTTCTAT TCTGATTTAT CTAACCAAAA GAGTTTCAGA CCATAGTTTT TCAAACTTAG 8700
CGGAGGTTTA TTAGATTTTG AAGTAGTATG CCAACACGCA CATGTACGAC AATAATAGCT 8760
TCTAACTAAA CCTCCGTTAT CATATTGAAC CGCATGGTCA GCTTTTCTT TAGTTTCATA 8820
TTGAATTTTG GAACGATTAG CTGCGGGACA GTAAATTCCA CTATTAGATT TCGCTTGTCT 8880
CTCCCTACGT TTTGAAAAAT AATTCATATT CTAACCTCTA TCAAGCTTGA TAGACGATTT 8940
GTCCCTTACA GATGGTATAT TTAACCTGCC CTTTAAAGGT TTCACCGATG AATGGTGAAT 9000
TAGCTGCTTT GGAAGCAAAA TGGGAGTCCA CAAAGCGGTC AGCCTTGGCA TCAAAAATAG 9060
TGATATCTGC TGGACCATTC TCAGCCAAGT AACCTGCTTC AAAGTTGTAA AGCTTGGCTG 9120
GGTTGTATGT CATTTTTTCA AGTAATTCCA TCAAGCTCAA CTCACCAGCT TCTACTAAAT 9180
AGGTCAAGCT GAGAGACAGG GATGTTTCTA AGCCAGTCAT ACCAGATGGC GCTTTGGTAA 9240
TATCCTCAAC ATTTTTTCA TCTACATGAT GAGGCGCGTG GTCAGTCGCA ATAACTGTGA 9300
TGACACCTGA TTTGAGACCT TCGATAACGG CACGACGGTC TGATTCCAAA CGAAGCGGTG 9360
GATTCATCTT AGCATTGCTA CTTGTGTTA AAAGAAGTGC TTCTGTCTTA GAGAAATGCT 9420
GTGGCGCTAC TTCTGCTGTG ACTTCTGCAC CTAACCCCTG AGCAAACTCC ACTACTTTAA 9480
CACTTTCTTC CTTAGACAAA TGCTGGATGT GAACATGGGC TTTAGTTGCA TAGGCAATCA 9540
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GTTCTCTAGC AATATTTTCA TTAAAGCCAA GAACACCGTT CAAACCTGGA TCTTCTCAT 9660
GAAGGCTGAT AAAGGTATTG AGTTTTTTGG CTTCTCCAT GGCTTCCTTG ACAATCTTAC 9720
TGCTCTCAAG CGGAATACCG TCATCAGAGA AACCAACCGC ACCAGCTTCT AAGAGTGCCT 9780
TAAAGTCAGT CAAGTTTTTA CCATTAAAGT TTTTAGTAAT GGTCGCAACT GTCTTGACAT 9840
TAATCTTCTC TTTGGCAGCT GACTGGAGAA CTGCTTGCAA AGTCTCCACG TCTGAAATGG 9900
TTGGACTGGT ATTAGCCATC ATGACGACAG TAGTAAACC ACCTGCAGCG GCTGCTAGGG 9960
CACCAGTATG AATGTCTTCT TTATGTGTTT GACCAGGTTT ACGGAAATGA ACATGAATAT 10020
CGACCAAGCC AGGAGCAACC ACAAGACCAG TAGCATCAAT CGTTTCTGCT CTTCTTCCG 10080
TGATCTCAGA CGCAATTTTG ATAATTTTCC CATCTTGAAC TAAGACATCA CAACTTGAT 10140
CCAAACCAGA CTTGGGATCC ATTACACGAC CATTTTTGAT TAGTAGCATC TGCTTCTCC 10200

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TTTATTCATA GAAATCAACT TGGGTATCCA ACAATTTATC CCCATCATAA ACAAACCTTG	10260
CTGAAAAGAA GGGTTTATCC TCTAAAAGCC ACTCAACAAA GGTGTGGTCA CCTTCCCAAG	10320
TCGGCTTGCT CAAAACCTCA TCATAGGGAA CCCATTCTAG CGTCCCCTCA TTGCAGTCAA	10380
TCAAGTCGCC CTCAAACCTCC GTCACCTTAA AAACATAGGT GTACCAGTCT AAATCTGGTG	10440
TAAATTCAGG AAAAGTGATG ACACCTTTTA GAACTGGCTT GGCTTTGAGC CCTGTTTCTT	10500
CAAGGATTC ACGCGCCGCG CATTCCTGGG GCGTCTCTCC TCTCTCTAGC TTACCACCCA	10560
CACCAATCCA TTCCCTTCA TGGACATCAT TGGGTTTCTT ATTACGATGG AGCATGAGCA	10620
GTTCTTTCCC ATTATCAATG TAGCAAATCG TCGCTAACTG AGGCATATTT TCTCCTTATC	10680
TAAGCCAATC GATTGGCTCT TGTCTGTCT CTTTAAAGAA TGCATTGGCC TTGAAAAGG	10740
GCTTGAACC CAAAATCCT CTATAAACCG ACAAAGGACT TGGATGGGCT GATTCGATAA	10800
TCAAGTGATG AGGATTGGTA ACTAATGCCT TCTTCTTACG TGCATAAGCT CCCCAGAGTA	10860
CAAAAACGAC TGGTCTATCT AGATGATTGA CCACCTGAAT CACAGCATCA GTAAAAGGCT	10920
CCCAGATTG ACCAGCATGA CCATTGGCCT GTCCAGCAGG AACAGTCAA CAAGCATTA	10980
GAAGCAAGAC TCCTTGCTCA GCCCAAGCTG TCAAATCATG AGATTTCTTA ACTCCGATAT	11040
CATCTGACAA TTCTTTCAAG ATATTTTGCA AGGATGGTGG AGCTGGGATA GAGTCAGGTA	11100
CAGAAAACT CAAGCCCTGC GCTTGACCTG GTCCGTGATA GGGGTCTTGC CCTAGAATTA	11160
CCACCTTAAC TTCTTCAAGC AGTGTGTGCA AGAGAGCCTG AAAACCTTT TCCTTGGGTG	11220
GATAAATAAT CCCCTGAGAA TAGACCTGCT CCATAAACTG ATTGATTTTC CCGAAATAAC	11280
CCTCAGGTAA TTGCGCTTA ATCAAAGCAT GCCAAGACGA GTGTTCCATA GCCGACTCGG	11340

(2) INFORMATION FOR SEQ ID NO: 148:

- (i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 12127 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 148:

AAAAATAGA CTTGTTAGAC TATAAATGTA GTAAGCCTAC ACAAGAAAAA TACATAGAGA	60
TAAAGGTGAT TATTATGAAA TTCAAAAAAA TGCTTACTCT TGCAGCCATT GGCTTATCAG	120
GATTTGGGCT TGTTGCCTGT GGCAATCAGT CAGCTGCTTC CAAACAGTCA GCTTCAGGAA	180
CGATTGAGGT GATTTCACGA GAAAATGGCT CTGGGACACG GGGTGCCTTC ACAGAAATCA	240

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CAGGGATTCT CAAAAAAGAC GGTGATAAAA AAATTGACAA CACTGCCAAA ACAGCTGTGA	300
TTCAAAATAG TACAGAAGGT GTTCTCTCAG CAGTTCAAGG GAATGCTAAT GCTATCGGCT	360
ACATCTCCTT GGGATCTTTA ACGAAATCTG TCAAGGCTTT AGAGATTGAT GGTGTCAAGG	420
CTAGTCGAGA CACAGTTTTA GATGGTGAAT ACCCTCTTCA ACGTCCCTTC AACATTGTTT	480
GGTCTTCTAA TCTTTCCAAG CTAGGTCAAG ATTTTATCAG CTTTATCCAC TCCAAACAAG	540
GTCAACAAGT GGTCACAGAT AATAAATTTA TTGAAGCTAA AACCAGAAACC ACGGAATATA	600
CAAGCCAACA CTTATCAGGC AAGTTGTCTG TTGTAGGTTT CACTTCAGTA TCTTCTTTAA	660
TGGAAAAATT AGCAGAAGCT TATAAAAAAG AAAATCCAGA AGTTACGATT GATATTACCT	720
CTAATGGGTC TTCAGCAGGT ATTACCGCTG TTAAGGAGAA AACCAGCTGAT ATTGGTATGG	780
TTTCTAGGGA ATTAATCCTT GAAGAAGGTA AGAGTCTCAC CCATGATGCT ATTGCTTTAG	840
ACGGTATTGC TGTGTGGTC AATAATGACA ATAAGGCAAG CCAAGTCAGT ATGGCTGAAC	900
TTGCAGACGT TTTTAGTGGC AAATTAACCA CCTGGGACAA GATTAAATAA AATGTTTGCT	960
CCATAAATCT CTAAAGAGAT GCAGACGTTT CATCGTACAA TAAGATAAAG AAGGCAAGTA	1020
GGGAGGTGTC GTATCTCCCT TACTTTCTTC ACTAGAAAGG ACAAGATGTG ACAAACAAG	1080
CCTTCAAAGA AGCAGTTTTT AGGGCAATTT TTTTCATGAG TGCAACAGTA GCTGTTGTAG	1140
CTATTTTGCT AATCTGTTT TTTATTTTTA GTAATGGCTT ACCTTTCATA GCTAACTACG	1200
GCTTGGCCCG TTTTTTATTA GGCAGTGATT GGTCGCCAAC GAACATTCCG GCAAGCTATG	1260
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TGCCAACAGG CATCTTGACA TCGGTGTTTA TGGTTTATTA TTGTCCAAAG CCCGTCTATG	1380
GCTTCTTAAA ATCAGCTATC AACTTGATGG CAGCCATTCC ATCTATTGTT TATGGTTTTT	1440
TCGGCCTACA ATTATTGGTG CCTTGGATTA GAAGCTTTTT AGGAAATGGC ATGAGTGTCC	1500
TAACCGCTTC GTTACTATTA GGAATAATGA TTTTGCCAAC CATTATCAGT TTGTCAGAAT	1560
CTGCTATCCG AACAGTTCCC AAAACGTATT ATTCTGGTAG CTTGGCTCTA GGAGCTAGTC	1620
ATGAACGGAG TATTTTTAGT GTCATCTTGC CAGCTGCGAG ATCTGGTATT TTATCAGCAG	1680
TTATTTTAGG AATCGGTCGC GCAGTAGGTG AAACCATGGC AGTTATTTTG GTGGCAGGCA	1740
ACCAGCCGAT TATTCCAAGT GGACTCTTTT CAGGAACCAG AACCTTAACA ACCAATATTG	1800
TTCTGGAAAT GGCTTACGCA TCAGGTCAGC ATAGGGAAGC CCTTATTGCA ACCTCAGCAG	1860
TTCTCTTTTT CCTTATTCTC TTGATTAATG CCTACTTTGC CTACTTGAAA GGAAATCAT	1920
CTTATGAGTA AATACCTGCT AAAACTTCTC GTTTATTGTT TTTCAGCTTT AACCTTTGGC	1980
TCTCTTTTT TAATCATGG TTTTATCCTC ATCAAAGGCT TACCTCATCT AAGTCTATCC	2040

CTCTTTTCTT GGACTTATAC TTCTGAGAAC ATTTCCCTTA TGCCAGCGAT TATTTCCACC 2100
GTTATTCTGG TCTTTGGTGC TCTTCTTTTA GCCTTGCCCA TAGGGATTTT TGCTGGTTTT 2160
TATCTTGTGG AATATACAAA AAAAGATTCC CTTTGTGTTA AAATCATGCG ATTGGCCTCA 2220
GATACCTTAT CTGGGATTCC TTCCATTGTT TTTGGTCTGT TTGGCATGCT CTTCTTTGTA 2280
GTCTTCTTAG GTTTTCAATA CTCTCTGTTA TCAGGAATCT TAACCTCAGT TATCATGGTG 2340
TTGCCAGTCA TTATTCGCTC AACAGAAGAA GCCCTTTTAT CTGTTAGTGA TAGCATGCGT 2400
CAAGCAAGTT ATGGACTTGG GGCAGGTAAG TTACGGACTG TTTTGTAGAAT TGTCTACCA 2460
GTTGCCATGC CAGGTATTTT AGCTGGAGTG ATACTAGCTA TTGGCCGTAT CGTTGGTGAA 2520
ACAGCTGCCC TCATGTATAC ATTAGGTACC TCTACCAATA CGCCAAGTAG TCTCATGTCT 2580
TCAGGCCGTT CTCTAGCCCT ACATATGTAT ATGCTGTCAA GTGAGGGGCT ACATGTCAAT 2640
GAAGCCTATG CTACCGGCGT GATTTTGATT ATTACTGTTT TAATGATAAA TACTCTATCA 2700
AGCTTATTAT CTCGAAAAC TGTGAAAGGA GCTTCCTAGT ATGGGAACAT TTTCAAGTCAG 2760
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GATGGTTTTT CAACAGCCTA ATCCCTTTGC CATGTCTATC TATGATAACG TGGCTTATGG 3060
CCCAAGGACA CATGGTATTC GAGACAAAA ACAATTAGAT GCCTTAGTGG AGAAATCTTT 3120
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ATCTGGCGGT CAGCAGCAAC GCCTTTGCAT TGCGCGAGCT TTAGCAGTAG AACCTGATAT 3240
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CCTCATTAG CAACTAAAA AGGATTATAC GATTATCATT GTTACCCATA ACATGCAACA 3360
AGCTTCACGT ATTTAGATA AACTGCTTT TTTCTTAACA GGAGAAATTT GCGAATTTGG 3420
AGATACCGTT GACGTGTTTA CCAATCCAAA AGATCAGCGC ACAGAAGACT ATATTTAGG 3480
ACGGTTCGGA TAAGGAAGGA AAAACCTATG AGAAATCAAT TTGACTTAGA ATTGCATGAA 3540
TTAGAACAAT CCTTTTATAG ACTAGGGCAA CTTGTCCTTG AAACAGCTTC AAAAGCCTTA 3600
CTGGCCTTAG CCTCCAAAGA CAAGGAGATG GCAGAGCTAA TTATCAATAA GGATCATGCT 3660
ATCAACCAAG GTCAAAGCGC TATCGAATTG ACCTGTGCCC GTTTGTTGGC CTTGCAGCAG 3720
CCACAAGTGT CTGACCTTCG ATTTGTGATT AGCATCATGT CTTCTTGTTT AGACCTTGAA 3780

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CGTATGGGAG ACCATATGGC AGGCATTGCC AAAGCTGTTT TGCAACTAAA AGAAAATCAA	3840
CTAGCCCCTG ACGAAGAACA GTTACACCAA ATGGGTAAAT TATCCCTCAG CATGCTAGCC	3900
GATTTATTGG TTGCCTTTCC TTTGCACCAA GCCTCAAAAG CTATTAGTAT TGCTCAAAAA	3960
GATGAACAGA TTGACCAATA TTATTATGCC TTATCAAAGG AAATCATTGG ACTTATGAAA	4020
GACCAAGAAA CCTCAATTCC CAATGGAAGT CAATACCTTT ATATCATAGG GCATCTGGAA	4080
CGCTCGCTGA TTACATTGCT AACATTTGTG AACGCCTAGT CTACCTAGAA ACAGGAGAAC	4140
TAGTGGATTT GAATTAATTC AACTAATCCT TAAAAGAGAA GAGTACGATT AAGTACTCTT	4200
TTTTATGGTT GTAAAAAAGT TCATTTGACC AATTTAAGCA GTGTAGATAG TGAGGAGTTG	4260
TTTCAATTCT ATCGTGAACG AGGGAATGCT GAAAACTTTA TCAAAGAAAAG GAAAGCAGGA	4320
TTCTTTGGGG ATAAGACAGA TAGTTGACC ATGATTAAGA ATGAAGTACG TATGATGATG	4380
GGCTGTCTGG CTTATAATCT CTACCTCTTT TTAAAGCAGC TAGCTGGTGA TGAAGTAAAG	4440
TCCTTGACTA TCAAGCGTTT TCGACGCTC TTCCTTCATA TTGCCGAAA ATATGTCTCT	4500
ACTGCTAGAC GACATATTCT CAAATTCTCA AGTCTATACG CCTATTCAA ACAGTTTCAA	4560
GCCTTATTTG ATACAATCTG CCAGATAAAT CTGATACTCC CTGTTCCATA TAGAGCTAGA	4620
GGGCAGGGGA AAACATGCCT AACAGAATAA GTCACCTTAT TTTAAAAATC GAGCATCAA	4680
CCAAGGGAGG AGTCTGCCCT TTTTAGGAA AAAATCAAGA CAAATCTCCT CAATTATGTC	4740
TCGAACATCA GAAATTAAGC AAAATCACCA GAAGGACAGT ATTTCAACTA GCTTTTCTGG	4800
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CTTTTGGGCG ATAGTTTCAT CTTTCGTATGT AGGAGTCCTC ATCAAGAAAT ACTTCAATTC	4980
TAGGTATTCC TTATCCAAT CTATATAACT TGGCATCAAC TTGTAATCTT CAACCCCCAA	5040
ACGTTCAAGCA ATATATTTTA ACTTTGTTAG TATTGGTCTG GATTCTCCAT TTTCAATTCT	5100
AATTAATTGA CGGATACTTA ATTCAGACTC ATCACCACAA AATTCTGAAC GACTGATTI	5160
TTTAGCCAAA CGTAATCTTT TAATTTTTTC GCCAACTCT CGCAACCTAC AAGAACTTCC	5220
TGAGTTGTTT ACCTCTATTA TAAGCATATA CTGAATCAA CTATCTATCA GATTCTTCT	5280
CACTTTAACT AAAGACTAAG AGTTTATCCC TTCGTCTCGG TTTTGTGTA TTTTCCACC	5340
ATACCCAGT AATGCAAGTG CAAAATCCCC TAGAATATGA TAGAATAAGA GAAAGAACTC	5400
TATCAAGGAG GAAATCATGG AAAAACAAAC CGTCGCCGTC TTGGGGCCTG GTTCTTGGGG	5460
AACCGCCCTT TCACAAGTCT TAAATGACAA TGGACACGAG GTACGTATTT GGGGAAATCT	5520
TCCCGAGCAA ATCAATGAAA TTAATACACA CCATACTAAT AAGCACTACT TTAAAGATGT	5580

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CGTTCTAGAC GAAAATATCA TTGCCTACAC CGACTTAGCA GAAACATTGA AAGATGTGGA	5640
TGCGATTTTG TTTGTTGTCC CAACAAAAGT GACACGACTT GTTGCCCAGC AAGTTGCACA	5700
AACCTTGGAC CATAAGGTTA TCATCATGCA CGCATCAAAG GGATTAGAAC CTGATAGCCA	5760
TAAACGATTA TCAACCATTC TTGAAGAAGA AATTCCTGAA CATCTCCGTA GTGATATCGT	5820
CGTTGTTTCA GGGCCTAGTC ATGCAGAAGA GACCATTGTG CGTGACCTAA CTTTAATAAC	5880
TGCTGCTTCT AAAGATTTAC AAACAGCTCA ATACGTTTCA AAGCTATTTA GTAATCACTA	5940
CTTCCGACTT TATACCAATA CGGATGTTAT CGGGGTTGAA ACTGCTGGTG CTCTTAAAAA	6000
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AGCCCAAGAA CTTGGAGTCT ATATGCCCCAT TACACAGGCT ATTTACCAAG TTATTTATCA	6360
CGGAACCAAT ATCAAAGATG CCATTTATGA CATCATGAAC AATGAATTTA AAGCAGAAAA	6420
TGAGTGGTCT TAACCCTCTA TAGAAAGGAT TTTTATGACA TCAAAAGTTA GAAAGGCAGT	6480
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TGATTCAAAC TTCGAATTGG AATATAACCT CAAAGAAAAA GGGAAAACAG ATCTTTTGAA	6720
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TCTCGGAGAT GCTGTTTTGC AAGCCAAGGC TTTGCTCGGA AATGAACCTT TTGTCGTTAT	6840
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TGCTCGTGAG TTCAAAGGGG CTCGTTACGA TGTCGGAGAC AAGTTTGGCT TCATGAAAAC	7260
ATCCATCGAC TACGCCCTCA AACACCCACA AGTCAAAGAT GATTTGAAGA ATTACCTCAT	7320

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CCAACCTGGA AAAGAATTGA CTGAGAAGGA ATAACAAAAT CATTTATATA AAGATTAGCC 7380
ACACATAAAT TAAGTAAATT CTCTACTTGA ATCTACCTAT TTAATAAAAA CTAATGAAAA 7440
CGCTATACTT GTATTTGTTT TTTCATTAAA ATAAGAGTAG AATAAATTAG TATAGTAAAA 7500
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CTCAAAGCAG TGCTTTGAGC AACCTGCGGC TAGCTTCCTA GTTTGCTCTT TGATTTTCAT 9000
TGAGTATTAG TCGTCACAAAT CCCATTCCCT TGTAGAAAAG CAAAATGGCG AGTCCTACGA 9060
ACAAGACTAC CGCTCCTAAT CTCTGGCTGG TGTTATACAT CCGTTTTTCT CCTCTAACTG 9120

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GAAAGATAAC TGCTAGAAAT GCGCCACCAA CTGCACCACC GATATGGCCT GCTAGGCTGA	9180
TTCCTGGAAT CAGAACACTT CCAATAATGT TAACCACAAA AAGTGTGAGA TAGGATTGCC	9240
CTAGCTGTTG GATATAAGGA TTGCGAGTTG CATAGCGAAG AACATAATC GCGGCAAATA	9300
GCCCATAAAG AGAGGTAGAG GCGCCTGCTG CTAAGGATTT AGGACTAAAT AAAAAACAA	9360
AGAGATTGCC CATCATTCCT GATAAAGAT AGAGAAAGAA AACTGCTTA GAACCGAAAA	9420
TCTCCTCTAC CTGCCTTCCA AGATAATAAA GTGAAAGCAT ATTAACAATG AAATGTTCCC	9480
ACCCAATATG AACAAAAATG GCAGACAAGA GACGCCAAAC CTGCTCGGGA AAGAGGCGAA	9540
TAGCTGGCCC ATACATGGCT CCAAATCGAA ATAATGTATC TGCCCTGTCA AAGTTTCCGC	9600
CTGCAGTGAC CAACATTAGT AAAAATACCA AGCCCGTCAC TAAGAGGAAG AACTCGTCA	9660
CAGGGTAACG TCTATCAAAG ATTTCTTCA TCAATTAATA CCTCCTGAAC AGGAATATCA	9720
TGGTTTTAG GTATAAAGTC CTGAATTTGA CAAGGATATA TCGTACTCAA AGTACGACCA	9780
GAAAAATGTT CCAGATAGCG GTCATAATAG CCTCCACCGT ATCCTATCCG ATATCCTTTC	9840
GTCGTAAAAG CCAGACCAGG AACATGAATC AAATCAATCT GAGATGCATC CACCACTTCC	9900
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ACCACAAAGT CCATGCGCCC CTGCGGATAA GTTTTGGGTA TTAACCTT CTGCGCTCC	10020
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GCGATGACCT TGGCTTCTTG ATAAAAGGGG TGTGTAAAA GCGCTCGGT TAAAGCTTGG	10140
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AATTCCGATT TCATAGACAA GCCCTCTATT CTGCTGCCTT CTTTTTCAGG AACTAGACA	10260
CCGAGCCAC CCCAATAGCT AAGACTTCTT CCTTAGGACT CATTTGAGGG TGATGAAGAG	10320
CGTAGGGACT ATCGATACCT AGCCAAAACA TCACGCCATC AACCTTTGAA AGGAGATAAC	10380
CAAAGTCCTC GCCTGTCATA GCAGGTTGTA TATCAATCAA CTGGATTCCG TTTTTTTCGT	10440
CAAAGAAGTC CATCAGTTCA CGCGCCAAGG CTGGATTGTT CTCAACAGGT AGGTATCCAC	10500
CTTGTTTGAG TTCCACTTCG ACTTCCATAT CAAAGGCAGC TGCAACCCCT TCTGCAACTG	10560
TTTTTACCCT CTTTTGCACC AAGAGACTCA TGTCTGTGT CAAGGCACGA ATAGTTCCAT	10620
GTAAAAAAGC TGTGTCTGTG ATGACATTGT TGGTGGTTCC AGCTTGAAAA ACGCCGAAGG	10680
TCACCACTGC TCCCTCGATT GGGTTGACAT TGCGGCTAAC AACTGACTGC ACTTGGGTCA	10740
CAAAGTAACT AGCCGCCACC AAGGCGTCAT TGGCTTCATG AGGAAAAGCT GCGTGGCCAC	10800
CTTGCCTTT GAAACGGATC TTCACCTCGC AAGTTCCTGC AAAGAGTGTA TGAGTATTAG	10860

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TCGCAATCTG GCCGACTTTC AAATCTGGAC GAACATGGAG ACCATAGAAT TGATCTGGCA	10920
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CAGGCTGAAA TAGAAAGAGC AGATTATTCT TGGGTTGCTC CTCAAGGGCG CGCTCAAGAC	11040
AGCCTAAGGC AATGGTCATA TGAAAATCAT GGACACAGGC ATGCATGCGA CCTTGGTGTT	11100
GAGAAGCAAA AGGTAGACCT GTTGTTCGA CGATAGGCAG GCCATCAATA TCTGTCCGCC	11160
AACCAATGGT TCGTCCGGC TGACTTCCCT GCAGGTAGAC CAAAATCCCT GTCCGCCAAG	11220
TACGAATTG AACAAAATCC TTGCCCCGTAG TCAATTTCTC AATCACATCC AGCAAATAAG	11280
CCTGAGTCTT GAACTCCTCC AAGCCAATCT CTGGAATCTG GTGTAAATCT CGTCTAGTCT	11340
GAATCAAATC TAACATCTAT CTGTCCTCCG ATATAGCAGA AAGAGGCTGG AAAAAGGGTT	11400
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GGTTCAGCAC TAGCTGGCTC AATCACACCT GCCAAACTG CACCTGCACC AACGTGGCTA	11700
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CCGATTTTCA CACCGATATT GATAACAGAT CCCATCATGA TAACAGCATT GTCACCAATT	11820
TCCACCTGGT CACGGATAAT CGCACCTGGC TCGATACGAG CGTTGATAGC ACGCTTATCT	11880
AGCAAAGGAA CTGCAGAATT ACGAGCATCT TGCTCGACAA CATAATCTTG ATTTTCTACC	11940
AAACCTTCAA GAAGCGGAGC CACATCCTTC CAGTCTCCGA ATAGGACATT TCCTAGTTTG	12000
ACAACAGAGC TAGGCACAGC AGTTGCGAGT TGCCCCCTCAA AGGTTACTTT GACACTGGTT	12060
TTCTTTTTCAG CATTGGCGAT AAATTGGATA ATTTCTTGAG CGTTCATTTT TGTAGCAGTC	12120
ATAGGTG	12127

(2) INFORMATION FOR SEQ ID NO: 149:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 12566 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: double
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 149:

CCATCCTTCT GTTGATGTGA CAGGAATGAT GATAAATCAA CCAGTAGCTA GTCGCGAAGA	60
GGTGACAGAG GCTTTGAGTC ACTTGGCGGT AGAGCACAAT AGTCTCATTG CTCGTCGAAT	120

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CGTTGAGCCA AATGAAGCTG GAGAAACACG CTTTACCTAT GCCACTTATG GTGAGGGAAA	180
GCTTCCAGAA GGTCTGACCA TTTCCTCCAA GGAGAGTGCA GAAACGAGTG ATTTATTAGG	240
GTCTTACTTG ATTGTATCAG GAAGTTTGGG TGGAGTGAGC TTACAGACCA CCTTGAAAGA	300
GCTTGGTTAT CAAGGCTTTG TTTCGAATGG AGAAGATCCA TTTTCGATAG TCTTACTATT	360
GACGGCCACC CCTATGGTGC TACTGAGTTT AGCTATTTTT CTGCTGACCT TTATGAGTCT	420
GACCCTGATT TATCGGATCA AATCCCTTCG TCAGGCAGGG ATTCGCTTAA TAGCTGGTGA	480
GAGCTTGTTT GGAGTTGCTC TCAGACCAGT GTTAGAAGAT GTGAGACAGC TTATCTGCTC	540
AGTGCTGGTA TCCAGTCTTT TGGGATTGGG GATTCTCTGG TATCAAGGTG CCTTGTTTAT	600
GGCAACGGTG CAACTGGTCA TCATTGCTCT TCTACTTTAT GGATTGACCT TGGCAGGGAT	660
TTCTACCTTA CTAAGTGTG TCTATCTACT TGGTTTACAG GAAAATAGTC TGGTGGATCT	720
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AGCTGTATTG GTGGTCGGAT CGAGTGGGAC AGCTCTCCTA CCCCCTACC GTGAAATGCA	840
GGAAATGGAG AGAGCTAGCA ATAAATGGAG CCAGTCCCTCA GACCGTTACC GTCTATCCTT	900
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AAGCCAGCTA TTTTTTGCCA AGGTACTAAA TGACAAACGG GTGGAGTTTT ACTCTCTCCT	1620
TATTGGGACG ATTTTGACCC TGTCTACGGC TATCTTGTTA TTTGATTCCA TGAATCTTCT	1680
CTATTTTGAG CAGTTCAGAC GGGAACTTAT GATTAAACGT CTTGCTGGTA TGACAATCTA	1740
TGAGCTTCAT GGCAAGTATT TACTGGCGCA AGGAGGAGTT CTCTTGCTTG GCCTAGTCCT	1800
ATCTAGTATT TTGACAAGAG ATGGTTTGAT TAGCGCTCTA GTTGTAGCTT TGTTTACGCT	1860

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AAGTGGGGGC TTTAGAAAA GTTAATCTAG GGTATTTGGA TTTAGAACAA AAAATCTATA 2340
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TGAATCTCTT GGTGGATTG AAAGATGAAA ATCGAATTAT CATCATTCG ACCCATAATC 2520
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AAAATCCGTA TTCGCAGGT ATCTGATTAT CCTAGTGCCA GAGGTGGTTT AGAAGATATC 2640
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CCTGCCAATC AAGGTAGTGG CTAATTTGCC TTAATACATC ACGACGCCTA TTCTCATGCA 3420
CTTGATTGAG AGTGGCATT CTTTTGTGA GTTTGTGGTC ATGATGCAGA AAGAAGTAGC 3480
GGACCGCATT TCAGCCCAGC CTAACACCAA GGCTTACGGT AGCTTGTCTA TCGCCGTGCA 3540
GTATTACATG ACAGCCAAGG TTGCCTTTAT CGTGCCTCGT ACGGTCTTTG TGCCAGCGCC 3600
AAATGTGGAT TCAGCCATCT TGAAAATGGT GCGTCGTCCA GAGCCAGCCG TAGCAGTAGA 3660

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GTGGAATAAC TTGACAGGT ACTTTGGTAA GACTGAAGAG GTCAAGGACA AGCTGACCAA	3780
GGCTTTGGAC CAGGCAGGCT TGTCACCAAG TGTGCGTGGG GAAGCTCTCA GCTTGGCAGA	3840
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CTGCCGAGGA AAATTCAGAA GGCTATATCC TCAAAATTCA CGAACGGAAA AACAGTCTGG	4080
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GCCGGTGCGA CTGTTTTTGT AGCAGGTTCC TATGTCTTTA AGGGAGAAGT CAATGAGCGA	5400

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TCATTATCGG ACAGATTTTG ATGCTTTTGT TGGGGTGGAT CGAGGCTCGC TCTGGGTCTT	5520
GGAAGAAGAC TTACCTCTTG CTCTAGCAGT CGGAGATTTT GATTCTGTGA CGGAAGAAGA	5580
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CAATCCTAAG TTGGCACCTT ATATGCATCA AATAGAAATT GAGGATGGGC AAAACTTGAT	5820
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AGGAATGCCT AGGTAGCTTG CTTGAGCAAC CCCTTCAGTA TGTGGGCAG CAAAGTAGAT	12120
AGCAGAGAAG AAAGGCATTT GAAGGAGGAT AGGGAAACAT CCTACACCGC CAAACATGCT	12180
GATACCGTGC TCTTTTGGAG CAGCAAAGAG AGCTTGTGG GCTTCGAGTT TTTCTTCTTG	12240
AGTAGTCGCT TCTTTGAGAC GCGTTGGTG TGGCTCAAGG ACGTGCTTGA GGGCGTTCAT	12300
CTTTTCAGAG TGAAGCGTTG CCTCCATGA TTGGTAGATA CCAAGTGGTA AGATAATCAA	12360
GCGTACGATA ATGGTTACGA TAATGATAGC GACACCAAAG CCTAGACCTT TATCAGTAGC	12420
GAAGTACTTG ATGGCTTCAG CCAAGGCGC TCCGATCGTA TTCCAAATAA ATCCTGTTGG	12480

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CTGACCTGTG GTTTTATCGA CATTGACACA GCCAGTCAAG ACAAGCAACA TAGCCACTCC	12540
CATAGCCGAG AGTGCAAAAT CGGGGT	12566

(2) INFORMATION FOR SEQ ID NO: 150:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 5238 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: double
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 150:

TGACACTCTG TAGGATTGTC GTTAATTGAT TGCTCGTACT CTCTACAATA ACCACCAAAG	60
TAAAAACGAC ATAGAAAGAT AGCATCAGCT GTAGCCATAG CGCCTTTGAC ACCTTCTGGA	120
TGATTATGAG TTACCTCTGC AGAAAGACTC GTAAGTCCTC TAGATGATGG CCATATACCA	180
GTTCCTCGCAT AAAAACCACA GTCCATGATC CAAGCACATG GAGAAATACG CATAGCTGAT	240
CCATTECCAA AGCTATTATA AGGCTCACGG TTATCGCTGT TTAGCCATGC ATTAAACCGA	300
GCACCGTAAT CAGCATTCGG ATACATTCTG CCATATTCTT TCATCGCGTC AATGAAGTCA	360
TCTTTTGTG CACCATTCTT AATTGCTTCT GCAACAGCAC AGGTCATAAC CGTGTCATCT	420
GTAAAAAAGC AGTCCTTCCG AAATAAAGGA AAGTCCTTTG TTTTGATATT GTTCCATTCTG	480
TAAACAGAAC CGACAATATC TCCAATAATT GCTCCAAGCA TCAGATTCTT CCTTGTTTCT	540
TTTGATGCTT TTTATATTGG TTATCTACCA TATTTATTTT AGAAAATAAC ATCCTGTTGG	600
ATTTTAAAAA TTTTATTTT TTCAAAATAG GGTTTTACCA TTTCTTTCCA CCTAGCTCTA	660
TGAAAATTGA TTGATTTTAA AGGAGATAGG CCATAATTTT CCAATGCATA ACCATCATTT	720
ACTTCAACAA CAAGTGTCTT GCCATCGCGA GTAACACCGA TATCTAGTCC ATAAGCTATT	780
GGCGCATCTT TCCAACATGA TATCGCTTCA TCAATTACAC TTGCATCAAA TTGTGCATGA	840
TAATCACCTG TATAGGGTCG AACATCTAAT ACGCGACCAT CTAACACAAA ACAACGCCAT	900
TCAGCTATGA ATTCTACAAC CTCCTAATC CATATAGGAT AGTCGAAAGG TAGACCAATA	960
CCTATTAAAT CATGGGTTC ATTAACAAC CTTCCAGTAA AGACTTTTGA ACCAGCTTTA	1020
GGCTTAATAA ATTTTCCCCA ATTATCAGGT ATATTCACAA TCTCTCCTAA AATACCAGCA	1080
TAAATCTTTC GACCATAAAA CTCTTTAAGC TCAATAGGAT AGTCATGAAC CGGAACGTTT	1140
AAGCCCATCA TTTTATAGTAA TGCTCTAGTC TCCATTATAT AATCTACAAC TATATCTTCA	1200
CTTGTTAACT CTTTATTTT AGAAAAAGAT TGATATAAAA TAACTTCTTC TCCTTGTAAG	1260
TAGGCACCTA CTTGAGCATT GTATTTATTA ATTGAAACCT CACTTGGTAA TTTACTTTGT	1320

1007

CTAATATAAA CAACCATTTT ATCACTCCTA TATCACTAGT GTTACACCAA TTTGTAAAAA	1380
ATAATAGCAA TTTTGCTCTT ATTTTTTTGA GTAAATAGCC CCCATAATAT CATCGAAATA	1440
ATCAACGGTA TTTAGGAGTA ATTCAATAAC CTGGGACTTT GTTAGTCGCA TTCCCTTCT	1500
ATCTCTAGCA TCTTCTACTA AATTTTCAAG TTTCTCTAGA TTTTATCAT CCAAGCTAAT	1560
CATTATTCTA TTTTATCGG TTGCCATTTT CATCACCTCA AGTTAATTCT ATCACAGGTG	1620
TAACACTAGT GTCAACTGGC TTTTATAATA CATTAGTTTA AAAGTGGAGA GGATTTTAA	1680
CACAGTAACT TTAAATCTTT GGTATTAAAA AATTTTCACA ATATTATAG AAATAAAATC	1740
TGTCTCAAAT CAGTTATCAA ATCTAGTATA AATTATGAGC GGCTACTCTA ATACTTTCCC	1800
TCTAAACAAG AAAAAGACTT ACACTCAAGG GTTTTCTTCC CCCCCTTCGT TATAACGTTT	1860
TGACTCTTTT ACTAGCAAAG GTATATACTC ACAAGGAACT TTGGTTGACT ATTGAATCTC	1920
TCCAACCTCT TCTTTAACAT ATCCTTCTAC ATCTTCAATC TCTACAAACA TTGGGTCTAA	1980
GTGACACAAG AAATGCCAAA CTTCGATCCC TTTTTTCTG TAAAGAATCG CTTACCGTC	2040
TTCACTCCG AAAAAGCTTC TGTCGATTTC ATATCCGCGG CTTTCTAAGA AGTCTTTTGC	2100
TTTACGATAG TTCGTTTCTC TTGTTTCGAC ATAGGCTTTA ACTTCATGGT TGTAAACGAC	2160
ATATGCATCA ATTTTTGAAT ATCCTTCGAT CACTCTATCA TTTTGGAGG ATAAATTTGA	2220
AATCTCTTTC CAAATAATGT TTACATTTTC CTCAGGATCG AACATAAATT TAGATAAAGG	2280
AACAATATTT CCGTTAAAAA TAATTTCCAT ATAATCCGGT ATGTTTTTAG GATTAAAATA	2340
CTCCACTTCA AAACCATCTT CTGTTTCCAG AGTGTATCCC GGGATTTGAG CTACAAAGGC	2400
TTTCCCATCT TCTATGGAAT CAAATGCTAC TAAATCTTTA GAATAATCAT TTTGGTACAA	2460
TTCCAATATA ACCATCGATA ATCTCTCCAT TTTCAATTATC AGGCTAATGT AAATAAGCAC	2520
GTCACCTGAC CAATTCAGGC TCTCTGTATC ATCTCATCAT ATTCCTACT TACTTTACGA	2580
GTCTTATACC CAGAACACAC CTTATCGACC TTCGGTCTCA CCTCGTCGCA TTGGCTGAAC	2640
ATCTACTTTT ACTTTGCTGA TGCTTCAACT CGTACAAGCA GTGATACCGC CTCAGCGTGA	2700
TGCGTCAGTG GGAATCAAAA GGTTGGGGGA ACCTTTTGAG GATTAACTAC GTTCTCTAA	2760
TAAACTTACA CATTCAACTT GTTCATCATT GTCCAAACCT ATGTTGAGAT TTTCTTCTAT	2820
AATTGGTAGC TTAAAAGTAA TGGATTTTAG CCATTGTCCG TTAGATTGTT TTTCTTCATA	2880
AACTTGAATT TCAGAAATCA AAGCTGAAAT TAACTGCCTA CGCTCTACAT CATTATGAC	2940
TTTATAGAGC TTATCAAAAT AGATCAGAAC CTTATATATG TTATCTCCTG TAAGCTTTTC	3000
AGCTTCAATA GTCTGTTTCT TTGCTTTCGC ATCAATTAGT GATGATTCTA ATTCATCTAG	3060

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TTTGTCATAC ATACGATATA GTCTATCATC TAAATCCTGT TTCCTTCTCT TATAATGCTT	3120
ATCTTCAACA TCTAAATTAT CTATTTCCCTC AATTAGCTTA AACTTTGTAG AATGACTCTT	3180
TCTCAATTCC TTTTGGTAAT TATCTATTTT TTTTCTATT TCAGAGGTAT CCACCTTCAT	3240
GTTGATTTTT TCTTGCATCA TAGAAGCAAA TTTCGGATTA CTTACTATCT TGACAATCAC	3300
CTCTGCAACA GCATCATCTA ACAATTCTTC TCTAATTTGC TTACTGAATG TACACTTATT	3360
ACCTCTTATC ATCTGCCTAT GGTACAACC ATAGTAATAA AAATCTTTAT ACTTTGTGCC	3420
ATCTTCTTTT TTCTTGATAC ACTTGTCCC AAACATTCCC ACTCCACATA TCGGGCATT	3480
TACAATTCCA GAAAGCAAGT GTGTGCGTGT ATCTTTTCCT TTATTCACAT GCTCATATT	3540
CTTTGCTTGA GATTTTAGCT TAACCTGAGC AGCTTGCCAA ACTTCATCGG AAATATAGC	3600
TTCATGTATC CCTTCAGATA TTAGATATTC ATCTTGTTCA ACCTGCTTAT ATTCATTTCT	3660
TGTACCATGA ACTTTTTCTA AAGTTCTTCT TCCAAATGCT ATTTCCCAT TATATACAGG	3720
ATCTTTAAT ATCTTTCTTA TAAGACCTGC ATCAAACAAA GGATTCTTAC CATTCTGTCT	3780
TGGGATTTTT CTAATTCCAT GATTCTCTAA GTATTTAGAT ATCCCATGG CTCCTATCGT	3840
AGTATTTACA TACTGGTCGA AAATCGTTCT TATTGCAACT GCCTCTTCCT CATTTATAAA	3900
CAGCTTGCCG TCTTCAAGTT TATATCCATA CGGAGCAAAG CCACCATTCC ATTTCCCTTC	3960
CCCTGCTTTT TGAATGCGAC CTTCCATTGT TTGAATACTG ATGTTTTCTC TTTCTATTTT	4020
AGCCACAGCT GATAAACAG AAATCATTAG TTTCCAGCA TCTTTAGATG AATCAATGCC	4080
ATCTTCAACG CAGATAAGAT TAACTCCATA ATCCTGCATT ATATGAAGTG TAGAAAGAAC	4140
ATCAGCGGCA TTTCTTGCAA ATCTTGATAA CTTAAACACA AGAACAAAAG ATACTCCATC	4200
TTTTCCAGAT TTTATATCTT CCATCATTCG ATTGAAGTGT ATTCTACCTT CAATAGACTT	4260
GTCAGACTTC CCGGCATCTT CATACTCTCC AACAATTTCA TAATCGTTGT AAATAGCAAA	4320
AGCTTTCATT CGTGATTTTT GTGCCTCTAA CGAATACCCC TCTATCTGTA TTGACGTAGA	4380
TACTCGTGTA TAGAGGTATA CTTTTATTTT TTCTTTTGAC ATAGTATTAA CCTCAATATA	4440
ATTTTCTAT ATCATATATA ATTTTTTAA TTTAAGTTTG GACTATCATT TCAAGTATAT	4500
TATAACACTT TTATTAGTCC GTCTCAATTT GTGTTTTTGC CATGTCAAAA CTATTTTCA	4560
TCTCTTGATT TTTTGCTGGC GTTGATCGG GTAGATTATC TAAATCTAAA GCACCAGCAT	4620
ATTTTGCAAT CAGATTGCT ATTAAATCAG CCAATCCATT CCAGTCATTG TCCAATATAT	4680
ACCTCCTCTA AAGTTTTATA TCTAATAATT ATTTGTTTAA TTAAGTTTTT TGACATTGAC	4740
AAGTGCTTTG GATTAGCAAC ATAGGAATCT CACTCCGCC TCTATTCCGG ATGAGCCGGC	4800
TTCAACCTTA GAAGTATCAT TACCCTCATT TTCTTCATAG CGGATAGGGT ATCCCTCCCT	4860

1009

ATATTCAAAC TCTTACTTAT CGCTCACTTT CTTTTGTCTT AGCAGAACTT TTTTGGCCGA	4920
ATTATTCAGC CGAAAGATCT TGACGGATAG GTPATTACGC TCCAAAAATA ATTAACGTCT	4980
TGTCTTGGTC TATTCAATTG TTAAGGTTCA AAATTTATCG AGAGTTATTA ATCTTTTAA	5040
AAATTGACCA TCAGAAAATA TTTATCTTGA TGTAACAAAA TTCTATAAAT TACCCTCTTA	5100
TACTTAACAG TGAAAAGAAG TCTTCTTGG TAACCAATTT TGAAATAGAA TTTGCTTATA	5160
TAAAAAGGTC CAATTCAC TGCATAAATA GCAGTAAAA TTAGACCCTC TTGGTAACTG	5220
TCATCTAAAA GTCTTCTA	5238

(2) INFORMATION FOR SEQ ID NO: 151:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 13425 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 151:

GACGATTAC GAAGAATCGA ACAAGAACCT GCTCCTATCA ATTCCCAACC TCTATCTCTA	60
AAATCTTGCA GTTCATGCTT ATACTTTTTT AAGAAATCTA GAATCATAGA TACGGTAGAT	120
GACATCGTCT GGTGACATT GGTCAAAATA GAACAAACCA AAACGACTCG TTCTATACCT	180
CCAACCTTTC AAATGCATCT CATGTAAATG TTCTTCTTCC TTGTCCAAAT CAACAATGGT	240
GAAAATCCGA AATTCTACTC TGCTATTCAT TGTCTTACCC CAAAATTAGA AAACATGCCT	300
GGCGTTATTT ATTAGATAAT TCTTCCACT TTTGACTCAA TCTCCAAAAA ATATAAGAAA	360
TCTGAATCGC AAAAATATC AATAAAACCC AATCTATTAT GAAAATCAAA AACACTTTCC	420
AACTGAAAGA ACTACCTCCA GTGACAACT TTGAGAAAAA CGGTAGTAGA GCTAAAAAGA	480
GAAATAAAAT AGGAAGCATC CGCATTGTTA AAATCCGTTT GGCATAAAAA AATCTTTATT	540
TAAACGAAAA TATTATGGCA AAATTTACGC CAGTTTTTGA ACGGCTGATG TAGATATTTT	600
ATACTTTCAA AATGTTTAAA TGTGATTATT TATTTTGA AAATAGATCA CCAGCCCGAC	660
TGAAAGTGCT TATAGAATGA TAATAAGTCG CCTGCCGAAA ACAGCGAAAA ATAGCGGTGT	720
TATGCGGAGA TAATCTGACG CGATGCGAAA GTATATTGCA TACTTATTTT CAACAATTTA	780
GCAGAGTATT TTTATAAGTG TGATATAATA GAAGTATAAT TTGTTCTGAT AGTTTATTTT	840
ATGGAGAAGT AGATTTTATG AATGCGGAGG GTTCAATATG GTTGAGTTTA TAAAGTCTAA	900
GAAAGAAATG AGTGAGGAGG ATATTAAAGC AAATTCATC ACTCCTGCTA TTGTATCCAA	960

1010

AGGATGGAAA AATGGTGAGC ATATCGCTTA CGAAGAATAC TTCACTGATG GTCGAATTGA	1020
AGTTAGAGGA GATAAGGCTC GTCGTAAAGA AGGAAAAAAA TCAGACTATT CACTGTATTA	1080
CCAATTTGGA ACTCGAATTG CAATTGTTGA GGCAAAGGAT AATAAACACA GCGTTCGAGC	1140
AGGATTACAA CAAGCTAFTG AATATGGAGA GATTTTAGAT GTTCCATTG TTTATTCTTC	1200
GAATGGTGAT GGCTTTATTG AACACGACCG TATCAGGAGA GAAGAACGTG AGCTGGAGTT	1260
AGACGAATTC CCTACTCGTG AAGAATTATT TTCTCGTATG ACGAAGGAAA AAGGATTGAC	1320
GTACGAAATT ACAGAAGCTA TCTCAACTCC ATACTATACA GACGCCTTCT CAATGAAAAC	1380
GCCACGCTAT TATCAGCAA TAGCTATCAA CCGTACTATT GAAACAGTTG CCAGAGGACA	1440
AAAACGAGTA ATGTTTGTGA TGGCAACAGG AACGGGGAAA ACGTTCATGG CTTTCAAAT	1500
TATTCATCGC CTTGAAAAAG CTGGTTTGGC TAAACGAGTT TTATTCTTAG CAGATAGAAA	1560
CATCTTAGTA GACCAAACGA TGGCTGAAGA CTTTAGGCCA TTCGAAAAGG TAATGACGAA	1620
AATTACACCA AAACTTTGA CTGCTCCTGA AAAATTAAAT TCTTTTGAAA TTTATCTAGG	1680
GCTTTATCAG CAACTAACTG GTGAAGATGG AACTGAAACA CATTATCAAA AATTGACAA	1740
AGACTTCTTT GATTTAATCG TAATTGATGA AGCGCACCGT GGTTCAGCTA AGGAAAACAG	1800
TAAGTGGCGT AAGGTAATTG ATTATTTGAG TTCTGCGACA CAGATTGGGA TGACCGCTAC	1860
TCTTAAAGAA ACCAAGAATG CTTCCAATAC GGAATACTTT GGTGAGCCAA TCTATACTTA	1920
TAGTTTAAAA CAGGGAATCG AGGATGGTTT TTTGGCTCCA TATCGTGTTA TGAGGGTTAA	1980
TTTAGATGTG GATGTGGATG GTTATCGTCC AGAACTGGA AAAGTTGATG CTAACGGACA	2040
ATTAATAGAA GATAGGTACT ACGGCAGGAA AGATTTTGAT AAAACCATG TCATTGATGA	2100
TAGAACGCAA AGAGTTGCCA AGTTTGTTTC TGATTATATG AAGCAAAACA ATGCACGATT	2160
TGATAAAACA ATTGTTTTTT GTGTTGATAT TGACCATGCC GAGCGAATGC GTGCTGCACT	2220
TGTAAAAGAG AATCTAGACT TAGTCCAAGA AGACTATCGT TATGTCATGC AAGTAACTGG	2280
TGACAACGCT GAAGGAAAAG CTCAACTGGA TAACTTTATG GATGTCAATT CTAATTTTC	2340
CGCTATTGTA ACAACGTCTA AATTATTAAC GACAGGAGTT AATGCTAAAA CATGTCGTTT	2400
GATTGTTTGA GACTCTAATA TCCAATCCAT GACTGAATTT AAACAAATTA TTGGTCGTGG	2460
CACACGTCTT TATCCTCAAA AGGGGAAAGA ATTTTTTACG ATTATTGATT TTCGAAATGT	2520
TACCAATTTG TTTGCTGACC CTGATTTTGA TGGTGATCCA GTGAAGGTGC TAGAAACAGG	2580
TGCGAAAACA GTCAGTGGTT CTACGCCCGG TTTCGTAGAT GAGGAAGGTG ACCCAGTAGA	2640
AAAATATATC GTTACAGACA AGCAGGTTAC CATTCTTAAT TCTACTGTTT AAGTATTGGA	2700
TGAAAACGGG AAACGTGATTA CCGAAAGCCT GACCGACTAC ACTCGAAAGA ATATCTTAGG	2760

1011

TAGCTACGCC ACTTTGAACG ATTTTATCAC AGTTTGGCAT ACGGCAGATA AGAAGAAGCT	2820
TATCTTAGAC GAACTTTATA AAAAAGGAGT TTATCTAGAT GCTATTCGAG AGTCGGAGGG	2880
AATATCAGAA CAAGAAATCG ATGATTTTGA TTTACTCCTA AAACCTGCCT ATGGTCAAAA	2940
AGAATTAACC AAAACGGAAC GTATCAATAA ACTCAAACAA AGCGGATATT TATATAAATA	3000
TAGTGAGGAA GCGCGTGCTG TTTTGAAAT TTTACTGAAC AAATACATGG ATAAAGGTAT	3060
TGGAGAACTC GAAAGCATTG AAACATTAAA ACTTCCAGAA TTTCAGATAT ATGGTGGAAC	3120
CTTCAAAATC ATCAATACTT ATTTTGGAGA TAAAAACGA TATTTACAAG CAATTAAAGA	3180
ATTGGAGCAA GAGCTATTTA CAGTAGCTTA ATGAAAGGAA AGTATGTCAA TTACATCATT	3240
TGTAAAAAGA ATTCAAGATA TCACTCGAAA CGATGCTGGT GTTAATGGTG ATGCTCAACG	3300
TATTGAGCAA ATGTCTTGGT TATTATTCTT AAAAATTTAT GATAGCCGTG AAATGGTTTG	3360
GGAATTAGAA GAAGACGAGT ATGAGTCAAT TATCCAGAG GAATTAATAAT GGCGAAATTG	3420
GGCTCATGCT CAAAATGGGG AACGGGTATT GACAGGCGAT GAATTACTTG ATTTTGTCAA	3480
TAACAAGTTA TTCAAAGAGT TGAAAGAGCT TGAAATAACT TCAAATATGC CTATTCGAAA	3540
AACGATTGTT AAATCAGCTT TTGAAGATGC GAACAACTAT ATGAAAAATG GCGTCTTGTT	3600
ACGCCAAGTC ATCAATGTTA TTGATGAAGT TGATTTCAAT AGCCCTGAAG ATCGTCATTC	3660
GTTTAATGAT ATTTACGAAA AAATTCCTTA AGATATTCAA AATGCTGGGA ACTCAGGAGA	3720
ATTTTATACG CCACGTGCAG CGACTGATT TATTGCCGAA GTTCTTGACC CAAAATTGG	3780
AGAATCAATG GCAGACCTTG CTTGCGGAAC AGGAGGCTTC TTGACTTCGA CTCTGAACCG	3840
TTTAAGTAGT CAACGTAAAA CTAGTGAAGA TACCAAAAAA TATAATACAG CTGTTTTTGG	3900
TATTGAAAAG AAAGCATTC CTCATCTTTT AGCAGTTACA AATCTGTTTC TTCACGAAAT	3960
TGATGACCCT AAAATTGTTT ATGGAAATAC TTTGGAGAAA AATGTTCTGT AATATACGGA	4020
TGATGAAAAA TTTGACATTA TTATGATGAA TCCACCTTTT GGAGGGTCAG AATTAGAAAC	4080
AATAAAAAAT AACTTTCCAG CAGAATTACG GAGTTCTGAA ACAGCTGATT TATTTATGGC	4140
TGTCATTATG TATCGTTTGA AAGAAAATGG TCGTGTGGA GTTATTTTAC CTGATGGTTT	4200
TCTATTTGGT GAAGGTGTAA AAACCTCGCTT GAAACAAAAA CTGGTAGATG AGTTCAACTT	4260
GCATACGATT ATTAGGTTGC CTCATAGTGT CTTTGCACCG TATACAGGAA TCCATACGAA	4320
CATTCCTTTC TTTGATAAAA CAAAGAAAAC AGAAGAACT TGGTTTTATC GTTTAGATAT	4380
GCCAGATGGT TATAAAAATT TCTCGAAAAC TAAGCCGATG AAGTCAGAAC ACTTCAATCC	4440
TGTTCTGTGAC TGGTGGGAAA ATCGTGAAGA GATTCTGGAA GGTAAGTTCT ACAAATCTAA	4500

1012

ATCATTTACA CCTAGTGAAT TGGCTGAGTT GAATTATAAT TTAGACCAGT GTGACTTTCC	4560
AAAAGAGGAA GAGGAARTCT TAAATCCCTT TGAGTTGATT CAGAATTATC AAGCGGAAAG	4620
AGCAACTTTA AATCATAAGA TTGATAATGT ATTAGCTGAT ATTTTGCAGT TGTGGAGGA	4680
CAAATAATGA CACCAGAACA ACTTAAAGCA AGTATTCTCC AAAGAGCGAT GGAAGGGAAA	4740
TTAGTGCCGC AAAATCCCAA TGACGAACCT GCAAGTGAAT TATTAAAGAG AATTAAAGCT	4800
GAAAAAGAAA AACTTATCAG TGAAGGAAAA ATCAAACGAG ATAAAAAGGA AACTGAGATA	4860
TTTCGTGGTG ATGATGGGAA ACATTATGGG AAGTTTGCTG ATGGAAGCAC TCAAGAAATT	4920
GATGTTCCCTT ATGATATTCC TGATACTTGG GAGTGGGTGA GGTCTTCTAC ATTGGTTGAA	4980
ATTGTCAGAG GTGGCTCTCC ACGACCAATC AAAGATTATC TTACTTCTGA AGTAGATGGA	5040
ATAAATTGGA TAAAAATAGG TGATACTGAA AAGGGTGAAA AGTATATAAA TAATGTTAAA	5100
GAAAAATCA AAAATCAGG GCTTAACAAA ACTAGATTTG TAAAAAAGG TACATTTTGT	5160
TTAACTAATT CTATGAGTTT TGGTAGACCT TATATTTTGA ATGTTGATGG TGCAATACAC	5220
GATGGATGGT TGGCTATTTT GAACTATGAA AACTCATTAA ATAAAGATTA CCTATTCTAT	5280
ATTCTTTTCAT CAAATGTAGT TTATTCTCAA TTTCTATCTC TAATTAGTGG AGCTGTTGTG	5340
AAAACTTGA ATAGTGATAA AGTTGCTTCT ATTCTTATCC CTCTCCCCC ACTATCCGAA	5400
CAACAACGAA TAGTAGAAGC AATCGAATCA GCTTTAGAAA AAGTAGATGA ATATGCTGAA	5460
AGTTATAATA GACTAGAACA GCTAGATAAA GAATTTCCAG ATAAACTAAA AAAATCTATT	5520
CTTCAATATG CTATGCAAGG AAAATTAGTT GAACAAGACC CAAATGATGA ATCAGTCGAA	5580
GTTTTACTTG AAAAAATACG AGCAGAAAAA CAAAACTCT TTGAAGAAGG CAAGATTAAA	5640
AAGAAAGATT TGGACATTTT TATTGTTTCC CAAGGAGATG ATAACTCTTA TTATGGGAAT	5700
ATACCTATGA ATTGGGTTGT TATAAAAATA AAAGATATTT TTTCAATAAA TACAGGTCTT	5760
TCTTACAAGA AGGGCGATTT AAGCATTAAT AATAAAGGTG TTAGAATTAT ACGTGGTGGT	5820
AATATTAAGC CTTTAGAATT TTCTCTGTTG GATAATGATT ACTACATTGA TACACAATTC	5880
ATCTCCTCTG AGCAAGTTTA TTTAAACAT AATCAGCTAA TAACACCTGT ATCAACCTCT	5940
TTAGAACATA TTGGAAAGTT TGCAAGAATC GATAAAGACT ATGATGGTGT TGTGGCTGGT	6000
GGATTTATTT TCCAATTAAC ACCATTCGAA AGTTCAGAGA TTATTTCAAA ATTTCTATTA	6060
TTTAACTTGT CCTCTCCGTT ATTTTATAAA CAATTGAAAG CAATAACTAA ACTATCAGGT	6120
CAAGCTTTAT ATAATATTCC TAAACTACA CTGAGCGAGC TATTAATTCC GTTAGCTCCT	6180
TTTGAGGAAC AGGAACTTAT TACTCAAAAA GTTGAGAAAC TTTTGA AAA AGTAAATCAA	6240
CTTTGAAAAT GATCTTTTC ATCTCTTCAT GATTAGAAAT AGGGATTAAT AATTCGGAGA	6300

1013

TACTGGTACT ATTTAATGTT TTCCCTTTGA TAGCATCTTT TGAATCACCT AAAGTAGAGA	6360
TAAGTGGCAA AAATATCATT AAGTAATCTC TGATAATATT TTCTTTATTA GCATAGGGGA	6420
ATATCGATAT AATGGCTTCA TTATGAGTGG CAGGAATATC CAATATGGCA ACTTTTCCAA	6480
TAGATAATTT AAAACTCATT AATAAAGTTC CTTTAGGTGA AATGTCTATT TTCTTTGATT	6540
TTAATGCTAA TTTAGAAATA GATTCTCTCG CATTAGTTAC ATAACCAGAT ATAGGCATAT	6600
CTGATATAGA TACCCAAGGT ATTCAGTTC CCCAAAAAGT AGCTTCACTG CGTGGAGGAG	6660
TTTTTCCTAT TCTGAAGTTA ACTAGGCTAG CAAATTTAAT ATATCTCCAT GCTTCTGGGA	6720
TTTCATATAT AGGATAAGAG GTTGTTCGT CTTTGTTCCT ATAATAAGAG CCATAATCAC	6780
AAAAATAGCA GGTAGTCAGT TTGACCACCT GTTATTTTTT ACCAATTAAC AATTTTATCT	6840
ACAATATTTT GTTGTTCAGT AGCTGTTTTT CTTAGATAAA TTCGAGTAGT TTCTATACTT	6900
TCGTGTCCCA TCAAATCTGC AAGCAAGGCA ATATCATTAT ACTTCGCTAA AAAATTCTTA	6960
GCAAATAAAT GCCTAAAAGA ATGAGGGTAA ATTACGTTAG GATTCATTTT GTATTTATCA	7020
GCATAATTTT TPAACTGTTG AGCAACTCCT CTTGCTGTAA TTGGTTCGTT AAATTTATTC	7080
AAAAATAAAT AACCACCTCG GCGATTTTCT GATTCTAACC AACTAAGACA ACTATTTCTT	7140
AATTTTTTAG GAATGTACAG TCTACGAATT TTACCACCTT TTGAGTAAAT GTCAAAATAA	7200
CCGATTTCTA CATGCTCTAC TTTTAGTTTA ATAAGTTCAC TTACACGAGC CCCAGTTGCA	7260
CCTAAAAACC AAACGACAAA ATGCCATTTT AAAATACCAT CTTTTTTCAA ACTACGTTTA	7320
AGAAAAAGGT AATCAGCATG GCTAATGACA TCTTCTAAAA ACGGTTTTTG CTGTACTTTG	7380
ACAAATTTTA ATTTCAAATC ATCATGACCA ATAAAAGCCA GATATTTATT TACTCCTTGT	7440
AGTCGCAAAT TGACAGTTTT AGGTTTAAAA TTGTCTAATA AATATCCTTT GTATTCAAAT	7500
AAATCTTCCA TTTTGAGTTC GTAATTCTCC AAGAAAAATC GAACACCATA AAGGTACGAA	7560
CGCACAGTAT TTTCAGCTAA ACCAGCTTTC TTCAAATGTA ATTCAAAATC TTTCAACGTA	7620
AAACTCCTAT CTTATGTTTG ATAGAAATTC CACCGCACGT AAACTATTA TACTAAATTA	7680
GTGCGTCAAT ATGGGCGAAA AATTGTTTGA TTTTATCAAC GATTCTGGAT TGTTCAGGAA	7740
GGGGTGGGAG GGGGATTAAA TATTCTTTTA TAGTTTTCTG TAATAATTCT TTTTGTTTTG	7800
TACTACCCGA CGCTTTTTCT TCAATAACTG ACTGAACAAT AGGAGAGGAA AGAAAATTAT	7860
AGATGAAATG GCAATTAATA ACCCCCGATA AGACTCTTAT AACTGTAACA TGGCTATCTG	7920
CAACAGCCCA GCCATAAGGA TTTTATTTT CATGGTAAAT AGCTAATCGT CCTAACGTAC	7980
CTAGACCTGT TGAATTCAC ATTAATCAC CATCTCTTAG TAATCTTCT TTCTGGTAAC	8040

1014

TATGAACTGT TTCGGGATCA ATAAATCTTG CTAAGTCAAT AGAAAAGCCA GACCATTGAT	8100
TACATTTCTG AGCAATCACA GGGTATATAG GAATATTTGA ATATTTTGGA GACTTCCCTC	8160
TTTGAATGTA GGAGGTTATA TCGTTTAACC TCACCCATTG CCAACTTTCT GGTATTTTAC	8220
AAGGTACTTC CTCATAATAA GAGTTATCAT CTCCTTGGGA AACAAATAGAA ATGTCCAAAT	8280
CTTTCTTTTT AATCTTGCCT TCTTCAAAGA GTTTTTGTTT TTCTGCTCGT ATTTTTTCAA	8340
GTAAACTTC GACTGATTCA TCATTTGGGT CTGTTC AAC TAATTTTCCT TGCATAGCAT	8400
ATTGAAGAAT AGATTTTTTT AGTTTATCTG GAAATTCTTT ATCTAGCTGT TCTAGTCTAT	8460
TATAACTTTC AGCATATTCA TCTACTTTTT CTAAGCTGA TTCGATTGCT TCTACTATTC	8520
GTGTTGTTTC GGATAGTGGG GGGAGAGCAA TTAATAATAG ATTAAAATTA TAATCATTGA	8580
TTGCAGGATA ACTTGTTC CA GTAGATTAT TATTAACACG ATTGATAAAA TTATCTGATA	8640
ATAAATAATA TTTCAAATAT GTTTCGTTAA GTAAAGTATC CAAAACAATA AATGCTGTAC	8700
TAGCTATCAA ATACTCTTTA AGTCTCTAA CTACAGCAAT ATTTTTTAGA TATGGTCTAA	8760
CTGTTGAAAA TAAGACACTA TTCTGCGAAA CTAATTTTCT AGCACGGGAA GCGCTTGT	8820
CAGGTGAAAG ATATTGTAGA TTTTGTAGT TGATTATGTT CTTTTTCTA TCAATACTAG	8880
ACGTATCTAT ATACCTAAAG GATTCTCTG GCTTATTTTG CCCAAAATTC CAATAAATG	8940
ATTTTATCCT CACCCACTCC CAAGTATCAG GAATATCATA AGGAACATCA ATTTCTTGAG	9000
TGCTTCCATC AGCAAATTC CCATAATGTT TCTTATGTGC TTCAAGTATA TAAAAAGGCG	9060
TAAAAATACG CCTATAGATA ATGGGGTTGA AATAGGTTTA TTGTTGATGA GATTGTAGAT	9120
AATTCAATTT TTTACTTCCA ATCGAATATT CAAATCCTCC ACCTTTCTG CCTGTAATTG	9180
TTCATCATAA AATTCAATAT CTTCAGGATT TTCCCTTGG CAACCTCGGC AGAAATATTC	9240
TTCCGCTCGA TCAGGATTCA AAAATCGACA AGCACAAACA AACAGTCGC CATCATCATT	9300
TATTGAGATA ATATAGTAGA TTGAAATAAG ATGTAAACAA ATCGATTAGG AAAGTTAAAT	9360
TAGTTCTAG AAATTTTATAG CAGATGTAGT GTACTATTCT AGTCTCAATT TACTATGGCT	9420
TCAAATATAT CTTTCGAAAA AATATTTACA GATGTGTAAT TTTGAAGCTT GCAAAAGTTA	9480
GTAAACTTGT AGATTTGAT TTGAAGTAAC TTGTTTCTT GCCCGATATT GTTTTTGAAA	9540
TTGAATTTT CCATAGTGAC TCCTTAATTT TCTTCTACAC GTCTGATGAT AAATCTAATT	9600
CGCAAAAGAG TCAAGAGGAT TTTTCGAAAA ATAAATAGCG ACCGAAATCG CTATTTTAAG	9660
GGTTATAGGT ATTTGATGGC TTAGACTGCT GTGTGACTGT TTACCCACAG GCAATCTTTC	9720
TTCTATATTA GTATTAGTAA AGGTCTAAAT AATTATCAAT TTCCCATGT GAAACGAAGG	9780
TTGCATAACT TGCCCATTCG ATTCGTTTGG CTTCAAGGAA GCTAGTATAG ATGTGATCTC	9840

1015

CGAGAGCAGC	TTTAACCACT	TCATCTTCTG	TCAAAGCTTT	CAAAGCGTTG	TGAAGAGTTG	9900
ATGGAAGGTC	TGTAATACCA	GCTTCCTTGC	GCTCTTCTGC	TGTCATGATG	TAGATATTTT	9960
CTTCGATAGG	AGCTGGTGCT	TCGATTTTAT	TTTCAATACC	ATACAAACCA	ACTTCCAAAA	10020
GAACAGCCAT	AGCAACGTAA	GGGTTCGCCA	TTGGATCCAC	TGAACGCAAC	TCAAGACGAG	10080
TTCCCATACC	ACGTGAAGCA	GGTACGCGCA	CAAGTGGCGA	ACGGTTACGA	CCAGCCCAAG	10140
CAATGTAAAC	AGGCGCTTCA	TAACCTGGAA	CCAAACGTTT	GTATGAGTTA	ACTGTTGGGT	10200
TCATGATGGC	AGTATAGTTG	TAAGCATGCT	TGATCAAACC	GCCTAGGAAA	TGGTAAGCTG	10260
TTTCTGACAA	CTGCATTCCCT	TTTGGATCAT	TTGGATCAAA	GAAGGCGTTA	TTTCCTTCTG	10320
CATCAAACAA	GGACATATTA	CAGTGCATAC	CTGATCCAGC	AATACCAAAT	TTTGGCTTCG	10380
CCATAAATGT	TGCGTAAAGT	CCGTGTTTGC	GAGCAATGGT	TTTAACAACA	AGCTTAAAGA	10440
TTTGAATCTT	ATCACAAGCA	CGGAGAACTT	CATCGTACTT	AAAGTCAATC	TCATGCTGTC	10500
CAACCGCAAC	CTCGTGGTGA	CTCGCTTCTA	CTTCAAATCC	CATTTTGGTC	AAGACATTCA	10560
CAATCTCAGC	ACGTGTGTTG	TCCGCAAGGT	CAGTAGGTGC	CAAGTCAAAG	TAGCCACCCT	10620
TGTCATTAC	TTCAAGTGT	GGGTCCCCAT	TTTCATCCAA	CTTAAATAGG	AAGAATTCTG	10680
GCTCTGGACC	AAGGTGAAG	GATTTGAATC	CAACTTCTTC	CATGTGACGA	AGAGCTCGTT	10740
TCAAATTACC	ACGAGGGTCA	CCCGCAAATG	GTTACCTTC	TGTTGTATAG	ACATCACAGA	10800
TCAGACCTGC	AACACTTCCA	TTTTCATCTC	CCCAAGGGAA	GACTGTCCAT	GTATCCAAGT	10860
CCGGGTACAA	GTACATATCC	GACTCATTGA	TACGTACAAA	ACCTTCAATA	GAAGATCCAT	10920
CAAACATAAC	CTTGTTGAC	AAGACCTTAT	CTAACTGTTT	ATCTGTAGCA	GGAATTTTGA	10980
CGTTTTTCAT	GGTCCCAAA	ATATCTGAGA	ACATAAGACG	AATAAAGGTA	ACATTTTTTT	11040
CCTTGACTTC	ACGACGAATA	TCTGCAGCTG	TGATTGGCAT	AAGTTTCTC	CTTAATCTAT	11100
GACTACTTGC	GGTGCCTAA	CCCGACCAA	AAGGTGACTG	TACTGAAGCA	AAACGCCCCT	11160
GTTGGAGGAG	TTCAATGTGA	AGTGCACGAC	GTACTTCAGT	CTGACTAACC	GCTTTCTTGG	11220
ATTCGCTTC	ACGTTGAGCA	TATTTTTTCT	TAATGGCAGC	GATATTATAA	CCTTCAGAGA	11280
TATAATCTTT	GATTTCAAGC	AGACGATCCA	TGTCATTCAA	GGAATACATG	CGACGATTTT	11340
CTTCGTTTCG	ATCGGGCTTG	ATCAACTCTT	GATCTTCATA	ATAACGAATC	TGACGCGCCG	11400
ATAGATCGGT	CAACTTCATA	ACACTGCCGA	TAGGAAAAAC	AGCCATATTT	CGGCGAAATT	11460
CTTTTCCTT	CATTTACAAT	TTCTTCTTT	CTGTCTATTA	TAGTCTAAAA	AAAGACAAAC	11520
GTCAATTGAT	AATGTTATAA	AATGTAACAT	TATTTTTCTT	TTTTCTCTAA	AAAGAGACGA	11580

1016

ATACGATCAA	TATCGTAATT	TACGATAATT	GCGACAAAAA	CTCCCATAAA	CGTTTCTAAT	11640
ACACGCACAA	ACACGTACAA	AATTGTCTCA	CCACTTGGAA	TTGATAGGGT	AATGATTAAC	11700
ATAGCTGCTA	CACCACCAAT	AACCCCTGCT	TTGTTATTCA	TGGCTACATT	TGTCATAATG	11760
GTTAACATGG	TGCAGATTGG	AACAAC TACC	AAGGTCACCC	AAAAGGCTTC	GTGGAAAAAG	11820
GTATTTAATA	AGAAGAAGAC	CAAGGCATAG	AGTCCACCGA	TACTATTTCC	TAGAATACGC	11880
GAAGTCCCAA	AATGAACACT	CTCATCAAAA	CTCTCCCTCA	GGCTAAAAAC	GGCTGTCAAA	11940
GCACCAATTT	GAAGACCTTT	CCAGCCAAAA	AAGCCAAAAA	TCAAGAGAAC	TAGAAAAACA	12000
GCAATACCTG	TTTTAAAGGT	TCGCATACCA	AGTTTGAAC T	GGGATTTATC	GAATTTATAT	12060
TTTTTAAAT	AACTCATAAT	CTCAACTTTC	TATTTCCATT	TTATCATAAA	TCGGTGATTT	12120
TTATGAGTAA	TAGTTGAGAG	GAAGCGTTTT	TATTTTAAGC	AAAAGAAAAG	AGGAACTTTC	12180
ATCCCTCTCT	TCTTTGATTT	ATTTATAAAA	TCTTATTTTT	CTGTCAAGGC	TGCAAGTCCT	12240
GGAAGAACCT	TACCTTCAAG	AAGTTCCATT	GATGCTCCAC	CACCCGTA CT	AATCCATGAG	12300
AACTTGCTCTG	CACGGCCAAG	GTTAATCGCT	GCGGCAGCTG	AGTCACCACC	ACCGATGATT	12360
GATTTAACTC	CTGGTTGTTT	CACGATAGCG	TCCATCACAC	CGATTGTACC	AGCTTGGA AA	12420
TCTGGGTTTT	CAAATACACC	CATAGGTCCG	TTCCATACGA	CTGTTTTGGC	ACCAGTCAAA	12480
GCTTCGTCAA	ATTTGGCGAT	AGATTTTGGA	CCGATGTCAA	GACCAAGGAA	GCCTTCAGAA	12540
ACTGCTTCAC	CTTCAGTGTC	ACGCACTTCA	GTGTAACCAG	CAAATGCGTT	AGCTTCTTTT	12600
GAGTCAACTG	GCAAGATCAA	TTTACCATTT	GCTTTTTTCAA	GAAGAGCTTT	CGCAACATCC	12660
AATTTGTCTT	CTTCTACAAG	TGAGTTACCG	ATTTGATAC	CTTGTGCTTT	GTAGAATGTG	12720
TAAGTCATCC	CACCACCGAT	AAGGACGTTA	TCAGCTTTTT	CAAGCAAGTT	TTCGATAACA	12780
CCGATCTTGT	CTGAAACTTT	TGAACCACCA	AGGATAGCCA	CGAATGGACG	TTCTGGAGTT	12840
TCAACTGCTT	CTTGATGTGA	GGCAATTTCT	TTTTCAAGAA	GGAAACCAGC	AACTGCTTTT	12900
TCAACGTTTG	CTGAGATACC	AACGTTAGAT	GCGTGTGCAC	GGTGAGCTGT	ACCGAATGCA	12960
TCGTTTACGA	AGATACCATC	TCCAAGTGAT	GCCCAGTATT	TACCAAGTTC	AGGATCGTTT	13020
TTAGATTCTT	TCTTGCCGTC	AACATCTTCG	TAACGAGTGT	TTTCAACCAA	GAGAACTTGT	13080
CCATCTTCAA	GAGCGTTGAT	TGCCGCTTCT	AATTCAGCAC	CACGAGTGAC	ACCTGGGAAA	13140
ACAACATCTT	GACCAAGTTT	TGCTGCCAAG	TCAGCTGCTA	CAGGAGCAAG	TGATTTACCA	13200
GCTTTATCAG	CTTCTTCTTT	CACACGTCCA	AGGTGAGAGA	AAAGAATTGC	ACGTCCACCT	13260
TGTTGATGA	TGTACTTAAT	AGTTGGAAGA	GCTGCTGTGA	TACGGTTATC	GTTAGTGATT	13320
ACGCCATCTT	TCAATGGTAC	GTTGAAGTCA	ACACGAACGA	GGACTTTTTT	ACCTTTCAAG	13380

1017

TCAACGTCTT TAACAGTAAG TTTTGCCATG TTACAAAAAC TCCGG

13425

(2) INFORMATION FOR SEQ ID NO: 152:

- (i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 905 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 152:

GATTTATCCT ACCGGnGAAT TTCCGGAGGG GTTCTAGCAG CAATCTTAGG AATCTATGAA	60
CGAATGATTG GCTTTCTGGC CCATCCCTTT AAAGACTTTA AAGAAAATGT TTTGTACTTT	120
ATTCCAGTTG CCATCGGTAT GCTTCTGGGA ATCGGCTTAT TTTCTACCC GATTGAATAC	180
CTGCTTGAAA ATTATCAGGT TTTGTATTA TGGAGCTTTG CGGGAGCTAT TATCGGTACA	240
GTTCTAGCC TCCTCAAAGA ATCAACTCGA GAATCTGACC GAGACAAGAT TGATTTAGCT	300
TGGTTATGGA CAACCTTTAT CATTTCTGGA TTAGGACTCT ATGCCTTAAA TTTTGTCTTT	360
GGAACCTTAA GCGCCAGCTT TCTTAACCTC GTCCTAGCAG GCGCACTATT GGCCCTTGGC	420
GTCTTGGTTC CTGGCCTCAG CCCATCAAAT TTACTTTTGA TTTTGGGACT CTATGCTCCT	480
ATGTTGACTG GTTTTAAAC TTTTGATTTT TGGGAACCT TCTTTCCGAT TGAATTGGT	540
GCAGGTGCAA CTCTCATCGT TTTTCAAAA TTGATAGATT ATGCCTTAAA CAACTACCAC	600
TCACGCGTCT ATCATTTCAT CATCGGTATC GTCCTATCAA GTACCCTTTT GATCTTAATT	660
CCAAATGCAG GAAACGCTGA AAGTATCCAA TACACAGGAC TTCACTTGT CGGTTATGTC	720
ATCATCGCCT TCTTCTTTGC GCTGGGAATC TGGCTTGGTA TTTGGATGAG TCAATTGGAG	780
GATAAATATA AATAATGGCA AAAAAAGTTA AAATCAAAAA AACATTGGTG GAACAAATCC	840
TATCTAAAGC AGCTATCCCT CATCAGGGGA TTCAAATCAA TGCCCTAGAA GGAGAGCTTC	900
CTCAA	905

(2) INFORMATION FOR SEQ ID NO: 153:

- (i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 4278 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 153:

1018

CTTGAATTAA ATAAAAAACG TCATGCGACT AAGCATTTTA CTGATAAGCT TGTGATCCC	60
AAAGATGTGC GTACGGCTAT CGAAATTGCA ACCTTAGCGC CAAGCGCCCA CAACAGCCAG	120
CCTTGGAAT TTGTGGTGGT ACGTGAGAAA AATGCTGAAC TGGCAAAGTT AGCTTATGGT	180
TCCAATTTTG AACAGGTATC ATCAGCGCCT GTAACCATTG CCTTGTTTAC AGATACGGAC	240
TTAGCCAAAC GTGCTCGTAA GATTGCCCCG GTTGGTGGTG CTAATAACTT TTCTGAAGAG	300
CAACTTCAAT ATTTTATGAA AAATCTGCCA GCTGAGTTTG CCCGTTACAG TGAGCAACAA	360
GTCAGCGACT ACCTAGCTCT CAATGCAGGT TTGGTTGCCA TGAACCTGGT TCTTGCAATTG	420
ACAGACCAAG GAATTGGTTC TAACATTATT CTTGGTTTTG ACAAATCAAA AGTTAATGAA	480
GTTTTGAAA TCGAAGACCG TTTCCGCCCA GAACTCTTGA TCACAGTGGG TTATACAGAC	540
GAAAAATTGG AACCAAGCTA CCGCTTGCCA GTAGATGAAA TCATCGAGAA AAGATAGAAA	600
GAAGAAAAA TGACAGCAAT TGATTTTACA GCAGAAGTAG AAAAACGCAA AGAAGACCTC	660
TTGGCTGACT TGTTTAGCCT TTTGGAAATC AATTCAGAAC GTGATGACAG CAAGGCTGAT	720
GCCCAGCATC CATTTGGGCC TGGTCCAGTA AAAGCCTTGG AGAAATTCCT TGAAATCGCA	780
GACCGCGATG GCTACCCAAC TAAGAATGTT GATAACTATG CAGGACATTT TGAGTTTGGT	840
GATGGAGAAG AAGTTCTCGG AATCTTTGCC CATATGGATG TGGTGCCTGC TGGTAGCGGT	900
TGGGACACAG ACCCTTACAC ACCAACTATC AAAGATGGTC GCCTTTATGC GCGCGGGGCT	960
TCGGACGATA AGGGTCCTAC AACAGCTTGT TACTATGGTT TGAAATCAT CAAAGAATTG	1020
GGTCTTCAA CTTCTAAGAA AGTTCGCTTC ATCGTTGGAA CAGACGAAGA ATCAGGCTGG	1080
GCAGACATGG ACTACTACTT TGAGCACGTA GGA CTGCCA AACCAGATTT CGGTTTCTCA	1140
CCAGATGCTG AATTTCCAAT CATCAATGGT GAAAAAGGAA ATATCACGGA ATACCTCCAC	1200
TTTGCAGGAG AAAATACAGG TGTGCCCCG CTTACAGCT TTACAGGTGG TTTACGTGAA	1260
AATATGGTAC CAGAATCAGC AACAGCAGTC GTTTCAGGTG ACTTGGCTGA CTTGCAAGCT	1320
AAACTAGATG CCTTTGTTGC AGAACACAAA CTTAGAGGAG AACTCCAAGA AGAAGCTGGC	1380
AAATACAAGG TGACGATCAT TGGTAAATCA GCCCACGGTG CTATGCCTGC TTCAGGTGTC	1440
AATGGCGCAA CTTACCTTGC CCTCTTCTC AGCCAGTTTG GCTTTGCTGG TCCAGCCAAA	1500
GACTACCTTG ACATCGCAGG TAAAATTCTC TTGAACGATC ATGAGGGTGA AAATCTTAAG	1560
ATTGCTCATG TGGATGAAAA GATGGGTGCT CTTTCTATGA ATGCCGGCGT CTTCCACTTC	1620
GATGAAACAA GTGCTGATAA TACCATTGCC CTCAACATCC GCTATCCAAA AGGAACAAGT	1680
CCAGAACAAA TCAAGTCAAT CCTTGAAAAC TTGCCAGTTG TTTCTGTTAG CCTGTCTGAA	1740
CACGGTCACA CGCCTCACTA TGTGCCAATG GAAGATCCAC TTGTGCAAAC CTTGTTGAAT	1800

1019

ATCTATGAAA AACAACTGG CTTTAAAGGT CATGAACAAG TCATCGGTGG TGGAACTTTT	1860
GGTCGCTTGC TAGAACCGCG AGTTGCCTAC GGTGCTATGT TCCCAGACTC GATTGATACC	1920
ATGCACCAAG CCAATGAATT TATCGCCTTG GATGATCTTT TCCGAGCAGC AGCAATTTAT	1980
GCCGAAGCTA TTTACGAATT GATCAAATAA AACGATAGAA GTCTGAGATC TTATGCTTGG	2040
ACTTCTTTTT GGAGGGAAAG TAGATGTCTC AAATCGAAAG AATCAAACAG GCTATCATGG	2100
CGGATTCGCA GAATGCCAGC TATACAGAGC GTGGCATTGA GCCTCTCTTT GCAGCGCCAA	2160
AAACTGCTCG CATCAATATC ATCGGTCAGG CTCCGGGACT TAAAACTCAA GAAGCAGGCC	2220
TTTACTGGAA AGATAAAAGT GGTGACCGCT TCGGGGACTG GCTAGGTGTG GATGAAGATA	2280
CCTTTTACAA TTCAGGTTAT TTTGCTGTTT TGCCTATGGA TTTCTACTTT CCAGGACATG	2340
GCAAGTCGGG TGATCTTCCG CCTCGTACAG GTTTTGCAGA AAAATGGCAT CCGCAGGTCT	2400
TACAGGAATT GCCTGATATT CAGTTAACCC TCTTGATTGG GCAATATGCC CAAGCCTACT	2460
ATTTACAGGA GAAAATCAGT GGAAGGTAA CGGAGAGGGT GAAACACTAT AAAGACTATC	2520
TGCCAGCCTA TTTTCCGCTA GTTCACCCAT CACCACGAAA TCAAATCTGG ATGGCCAAAA	2580
ATCCTTGTTT TGAGGCAGAA GTAGTGCCAG ATTTGAAAAA AAGAATTAAA ACCATTTTAT	2640
AGTCAATGAA AATCAAAGAG CAACTAGGA AGCTAGTCGT AGGCTGCTCA AAGTACAGCT	2700
TTGAAGTTGC AGATAAACT GACGAAGTCG GTAACATACG CACGGTAAGG CGACGCTGAC	2760
GTGGTTTGAA GAGATTTTCG AAGAGTATTA GAAGAAAAAG AATGAAAGAA ATAGCCTTTG	2820
ACGCATTTTA CCAGCTTTAC CAAAACGACC AGCTTTCTTT AGTGGATGTG AGAGAAGTGG	2880
ATGAGTTTGC AGCTCTTCAT TTAGAAGGTG CCCACAACCT ACCGCTTAGT CAATTGGCTG	2940
ATAGTTATGA TTAATTGGAC AAAGATCGCT TGCATTATAT TATTTGCAA TCTGGAATGA	3000
GATCGGCGCG TGCTTGCCAA TTCCTATTAG AACAAAGTTA TAATGTTATC AATGTCCAGG	3060
GTGGCATGTT AGCCTTTGAA GAACTTTAAA ATTTTGCATT TCTCCTACTT GGTGTGGACT	3120
GGGTAGGAGA GTTTTATTTT TAGATAATTC TTATTTTAA GAAAATTGAA AACATTTAAT	3180
ATTTGCCTCG TGATGCTTTT TTCAGACTCC TAATCGTGGT ATACTAGGTC AGTATTTTAT	3240
AAATATGAAG GAGATTTTGA TGGCTAAAAA AGGTACCCTA ACAGGTTTGC TCCTGTTTGG	3300
AATATTTTTT GGTGCGGGA ACTTGATTTT TCCGCTTCT CTAGGTGCTC TATCTGGAGA	3360
ACATTTTCTT CCTGCCATCG CAGGTTTTGT CTTTTCAGGC GTTGGTATCG CCGTCTTGAC	3420
CCTTATTATT GGAACGCTAA ATCCTAAAGG ATATATCTAC GAGATTTCAA CGAAGATAGC	3480
GCCTTGTTTT GCGACTCTTT ACCTCTCAGT TCTTTACTTG TCAATCGGTC CATTCTTTGC	3540

1020

TACCCACGT ACTGCTACAA CAGCTTACGA AGTAGGGATT AGCCCCCTTT TGTCGGATGC	3600
AAATAAAGGA CTTGGCTTGA TTGTATTTAC GGTTCTGTAT TTTGCGGCAG CCTATTTGAT	3660
TTGCTTAAT CCATCAAAAA TCTTAGACCG CATTGGACGT ATTTAACGC CAGTCTTGC	3720
AATTTGATT GTTATCTTGG TCGTTCTGGG AGCTATCAAA TATGGTGCAA CAAGTCCTCA	3780
AGCTGCTTCA CTGCTTATCA AGCTTCTGCC TTTGGTACAG GTTCCTAGA AGGTTACAAT	3840
ACCTTGGACG CCCTTGCTC AGTGGCCTTT AGCGTAATCG CAGTTCAAAC CTTGAAACAA	3900
CTTGGATTTT CAAGTAAGAA AGAATACATT TCAACTATTT GGGTTGTTGG TATCGTTGTT	3960
GCCCTTGCCT TCAGCGCTCT TTACATCGGT TTAGGTTTTT TGGAAATCA TTTCCAGTA	4020
CCAGCTGAAG CGATGAAGGG TGGAAACCA GGTGTTTACA TCTTGTACA AGCCACTCAA	4080
GAAATCTTTG GCTCAACAGC TCAACTCTTC CTTGCAGCTA TGGTTACCGT AACCTGCTTC	4140
ACAACGACTG TTGGTTTGAT TGTGTCAACA GCTGAGTTCT TTAATGAGCG CTTCCACAA	4200
ATCAGCTACA AGGTTTATGC GACAGCCTTT ACCTTGATTG GATTTGCTAT TGCCAATTTG	4260
GGTCTTGATG CGATTATC	4278

(2) INFORMATION FOR SEQ ID NO: 154:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 1953 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 154:

ACCCGATCAA ATGACAAAAG CTAACCTTGG TGTCGTAGGT ATGGCCGTAA TGGGTCGTAA	60
CCTTGCCCTT AATATTGAAT CTCGTGGTTA CACAGTTGCT ATCTACAACC GTAGTAAAGA	120
AAAAACGGAA GATGTGATTG CTTGCCATCC TGAAGAAGAAC TTTGTACCAA GCTATGACGT	180
TGAAAGTTTT GTAAACTCAA TCGAAAACC TCGTCGTATC ATGCTGATGG TTCAAGCTGG	240
ACCTGGTACA GATGCTACTA TCCAAGCCCT TCTTCCACAC CTTGACAAGG GTGATATCTT	300
GATTGACGGA GGAAATACTT TCTACAAAGA TACCATCCGT CGTAATGAAG AATTGGCAAA	360
CTCTGGTATC AACTTTATCG GTACTGGGGT TTCTGGTGGT GAAAAGGTG CCCTTGAAGG	420
TCCTTCTATC ATGCCTGGTG GACAAAAAGA AGCCTACGAA TTGGTTGCGG ATGTTCTTGA	480
AGAAATCTCA GCTAAAGCAC CAGAAGATGG CAAACCATGT GTGACTTACA TCGGTCCTGA	540
TGGAGCTGGT CACTATGTGA AAATGGTTCA CAATGGTATT GAGTACGGTG ATATGCAATT	600
GATCGCAGAA AGCTATGACT TGATGCAACA CTTGCTAGGC CTTTCTGCAG AAGATATGGC	660

1021

TGAAATCTTT ACTGAGTGGG ACAAGGGTGA ATTAGACAGC TACTTGATTG AAATCACAGC 720
TGATATCTTG AGCCGTAAAG ACGATGAAGG CCAAGATGGA CCAATCGTAG ACTACATCCT 780
TGATGCTGCA GGTAACAAGG GAACTGGTAA ATGGACTAGC CAATCATCTC TTGACCTTGG 840
TGTACCATTG TCACTGATTA CTGAGTCAGT GTTTGCACGC TACATTTCAA CTTACAAAGA 900
AGAACGTGTA CATGCTAGCA AGGTGCTTCC AAAACCAGCT GCCTTCAACT TTGAAGGAGA 960
CAAGGCTGAA TTGATTGAAA AGATCCGTCA AGCCCTTTAC TTCTCAAAAA TCATTTTCATA 1020
CGCACAAGGA TTTGCTCAAT TGGGTGTAGC CTCTAAAGAA AACAACTGGA ACTTGCCATT 1080
TGCAGATATC GCATCTATCT GGCCTGATGG CTGTATCATC CGTTCTCGTT TCTTGCAAAA 1140
GATTACAGAT GCTTACAACC GCGATGCAGA TCTTGCCAAC CTTCTTTTGG ACGAGTACTT 1200
CTTGGATGTT ACTGCTAAGT ACCAACAAGC AGTACGTGAT ATCGTAGCTC TTGCGGTTCA 1260
AGCAGGTGTG CCAGTGCCAA CTTTCTCAGC AGCTATTACT TACTTTGATA GCTACCGTTC 1320
AGCTGACCTT CCAGCTAACT TGATCCAAGC ACAACGTGAC TACTTTGGTG CTCACACTTA 1380
CCAACGTAAA GACAAAGAAG GAACCTTCCA CTACTCTTGG TATGACGAAA AATAAGTAGG 1440
TCAGCCATGG GGAAACGGAT TTTATTACTT GAGAAAGAAC GAAATCTAGC TCATTTTTTTA 1500
AGTTTGGAAC TCCAGAAAGA GCAGTATCGG GTTGATCTGG TAGAGGAGGG GCAAAAAGCC 1560
CTCTCCATGG CTCTTCAGAC AGACTATGAT TTGATGTTAT TGAACGTTAA TCTGGGAGAT 1620
ATGATGGCTC AGGATTTTGC AGAAAAATTG AGCCGAAC TAACCTGCCTC AGTCATCATG 1680
ATTTTAGATC ATTGGGAAGA CTTGCAAGAA GAGCTGGAAG TTGTTACGCG TTTTGCAGTT 1740
TCATACATCT ATAAGCCAGT CCTTATCGAA AATCTGGTAG CGCGTATTTT GCGGATCTTC 1800
CGAGGTCGGG ACTTCATTGA TCAACACTGC AGTCTGATGA AAGTTCCAAG GACCTACCGC 1860
AATCTTAGGA TAGATGTTGA ACATCACACG GTTTATCGTG GTGAAGAGAT GATTGCTCTG 1920
ACACGCCGTG AGTATGACCT TTTGGCGACA CGG 1953

(2) INFORMATION FOR SEQ ID NO: 155:

- (i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 6474 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 155:

CCGGCAGTAC ACCAGCTTGG GGAACAGCCA CTGGAACGAT GAGGTGTGAG CTCAAAATAT 60

1022

CCTCCAGTTA TGTTCCTTCT AATAGTATAC CGGAAGAGTG AAAGGATTTT ATAATGGAGC	120
GGTTACAAAG AACCTACTTT CTATTAAACA GTATACTATG AAAATGTGAA AATTTAACAT	180
TTTTTTGTAC AAATTTTATA AATTATTGCC TTTTAAATAT CAATAGTTAA TCTCTTATCC	240
AGATCCCCCT TGTGTAAACT TTATCTTTAT AAGCTTCAAG GCCCTATCC CATCTATTTG	300
CAACAATTAG ATCACTTTGT TTTGTAAATA GTTCAAAATT CTTTCAATA ATTACGTTAT	360
CTATACTAAC GTTTAAATTT GGTTCATATA CTAAATTTT TATACCGACA ATCAATAGTT	420
CATTAATTAT ACTTAAATA GCTGACTCTT TGTAATTATC TGAATTATAT TTCATCCCCA	480
ATTTATATAT TCCTACTATC TTGGCTTTC GTTCCAATAT TTGTTTAACT ATGAACTGTT	540
TTCTATTTGT GTTTGAAATA TCAATCGCTT CTATCACTGG GGCATTTATT TCTATAAATT	600
CTTTTTTTAA TTGTTTAGTA TCTTTGGGAA GACAATATCC TCCAAATCCA AAAGAAGGAT	660
TATTATAAAA ATTTCCAATT CTTGGATCTA AACAAACACC TTTATTACA ACTTCAGCAT	720
TTAAGCTTCT CCTCTCAGCA AAAGAATCTA GTTCATTAAA AAAGCAACAC GGAGAGCTAA	780
GAATGTGTTA GAAAAAGCT TAATTGCTTC TGCTTCAGTA GGAGAACTA ACATAACATT	840
TTAATATTG GCAGTACTAT GAGTACTAAT CGAAAGGAAC AACTCTGCAA TTTTCTTCC	900
TTCAACTGTC TCATCTCCAA CAACTATGCG ACTTGGATAT AAATTATCAT ATATAGAACA	960
ACCTTCTCTC AAAAATTCAG GGACAAAAAT GATATTTTTT GTATCAAACA GCCTTTTTAA	1020
TTTGTGTAAG AAGCCGATCG GAACTGTTGA CTTTAAATA ATCTTTCCAT TAGGTTTAC	1080
CCTCAGAATC TTCGATACCG TTTGTTGAT TTCATATGTA TTAAACTAC CAATTTCTC	1140
ATCATAATCT GTCGGAAGCG CAATAATATA ATAATCAATA TTATTTTTAA TTTCAGAAAA	1200
TGTATCAAAA AAAGTAATAT TTAAGTTATT CTCGAAAAA AACTTCATAA GCTCTTCATT	1260
TTTAGATGGA AGAATGCCCT TTTTAAATT ATTTATTTT ACAGAATCTA TATCATATGC	1320
AACAACTTTA TATTTAGATG CAAATAGTAA CGCGTAGGCC AGCCCAACAT GCCCCAACCC	1380
AATTACTGCT ATATTCATAA AACTACTTCC TTATTTCTTA ATCCAAAATC TAATAGAA/A	1440
AGCTGCCCCA TTCCTTAAAT ACAACTCTTT AATATTGTTT AAAAGTTTTT CAACTGATTT	1500
CCAGATTATC AAAATCTGAG ATTTATAGCA CAATATTGAT GATATTCTAT CAATATAATT	1560
TTTTTCATCA AGTTCCTCTT GATACATTTT TAATTCCTTA GTTTTTCCCA TATAACTAAC	1620
CATACTACTA TCACTTACAT ATGGGAAGTC CTCATAATAT ATTACTTTAT AACGCATAAA	1680
TTCAAGCGCC CTTCCAATAC TATTCACAAA AACATGAGCA ACATGGTCAC CAAGTGAAAG	1740
CGGACAATAT ACGACACATT TGTCGTCTAA ATGCATTAAC AGCTCTTTTA TGATATCATT	1800
CTTTAATGTG TCCTCATTTT TTAATTCACT ATAGATATGA CGGTATAGAA AATTGCCATT	1860

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TCTATCTTTC CTATAGAGAC ATTCATAGTA CGATAAGTGT CTAAAATCAC ATTGTAGACG	1920
TTCACAAGCT AACCTGTCTT CTTTCTTCCT TTCTTCAATC GGATATTTCC CAAGGTTACA	1980
CAACTTATGA AATTGCTTAG CAGAGGGCTG TAGCTGTTGG CTCAAAGGGT AACCAGAAAA	2040
TATAGTAATA ACAAGTACAA TTTCTCCTTC TGAAGTTAAT TTTGAAATAT AATCACCACA	2100
GGAAAAAATT GCGTCATCTA AATGTGGAGA TAAAAAGATA TACTTAGTAT TGTTACTCAT	2160
AACCATTCCC TCTACAATTT ATCTAAAAAC TACTAAGTG TCTGATTAAA TTCCACATCA	2220
TCAAAAAAAT TCACCTTATT CTTAATAATG AATATTTTCGT TAAATAAACA TATATATAAA	2280
TATTTCAATA TCCTTTCAAT ATCATCCTCT AAATCTCCT CAATATTTTG TATCAGCCCA	2340
TTTACAATCT TATTAAAAAA GATAAGCTCT TTATCTCTAA AATTAAATAT TTTCATACAA	2400
CTGTTGTATC GAAAAATATA TAAAAAATT TTTACTAATG TTTGAATATT TAAACAACCTA	2460
AATAAATGAG TTGTACCCGG GACACTATTT ATGTTATCAA GAACACTATC TTGAAACCTC	2520
AACTCACAGT TCTTTTGTG AAATCTTTT TTATCGTTTA GATCTGATAT TTTTTTAGAC	2580
ATTTCAACAA TCTCAGACAT TTTATATGGA TATCTAGGAT GAATGCCAAA ACTATGCAAA	2640
ATGAACTGCA CCCCCAAAGT TAGACAGAAT AAATCTAACT TTTGGGGTGC AGTTCATAAG	2700
ATTGGGATAT TTTTTTTTAG CTAGAACTAG TAGAAATATA TAGTCAAATA ACAGATACCT	2760
TAAGGGTTTC TCATCTACAT AAAAAAATGA TACTTTTTTC TCTTCAGTAA TTACCTCATA	2820
AGCTTCACAA TAGAATCTCA TGTTTCCCTC CCCTATATTC TTAAATAAAA TCCTTTGGAA	2880
ATTGATATAT CTTAGTAAAA TATTGTTTAA GTTCCGGATG CGGAGCATGG GTAACAATAA	2940
TGACAGTCAA ATCCTCTCTA TCTAATATCT TACGTTCAAT CGCTAACGAA GTTCTCCTAT	3000
CGATAGCAGA AGTTCCTCTG TCAATTAATA CTATTTTCTT ATTTCTAATT AGCCCTCTAG	3060
CTAAAGTAAT TTTTGTTC TGCCCTCCTG ACAGTAATCT CCCATCATCA CCAACATAAT	3120
AATCTAAAT GTTATTAGGA AAATCTTTTA CACTCAAACC AACTTGCTCT AAAGACTGTA	3180
GTATTTCTTC ATCAGTATAA TTTCTTCCA ATAAAATATT ATCTCTAATC GTACCTTCAA	3240
ACAAATAAGC TTTTGTCT ACATATAGAA CATTGAAAC CATATTTAAA TAGGAGGTTT	3300
TTTTATATC ATCCCCGAG AATCGCAATT CTCCACTATA ATCTCTCAA AAGCCATTCA	3360
ATAATTTTAA TAATGTAGAT TTCCCGCTTC CACTTTCACC TAAAATTAAA TACTTTTCAT	3420
TACGTTGAAA AAAAAATTT AAGTTTTTTA ATATTTCTTT ATCTCCATAC TTATAGCAAA	3480
TATTTTTGTC TTCATATAAC GGAAAACTC TATTCACCTC ATTTGGTTTC ATATCATTCA	3540
TTTTATTTGA CTCAATTGGA TTAATTGAAT ACAATTTTAA AAAAATAGGC TTCGTACCAA	3600

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TAATAGAGGA TAATTGACCT CCTAATTCAC CTAGCGCTGT AAAAATAACA CCTGTTAGTG	3660
CTCCTATTGC TTCAATAGTA CCAATTTTCA CTATTCCTTT TATTGCAAGA TAGCCTGTTA	3720
AAAAACGAG AGATATCTGA AAAAAATAT TGAGAAAGAA GCTAATAGCG CCTGCTAACG	3780
TTTCTACAGT TGTCTTTCTT TGTATAACCA TCTTTAATAA AATTCCTGCT TCTTTAATTT	3840
TCTTAGGCAA TACATATAAA AGATTCAAGG ACGCTAACAC ATCAAATCCA TTCAATATAG	3900
TCTCACTAGA TTTTAAAAAA GCTTCATTTT GGTTAGTTAA ATTTAGACTA ACTTCTCGCA	3960
TTTTCGATGC AAAGATTTTT GGTACAAGTA GCATAATCAT TAATGAAAAC AAGGTGGCTA	4020
CAGTCAATGA CCAATGATAG TGATTAAGAG TCACAACTGC AAATATAGTA CCAGAAATTC	4080
CTTTTATTAC TAAAAAAGT TGTTTAAACG CCTGATCATT TAAAGTCTGA ACATCATTAT	4140
TTAGCCACGA AAGATATGTT CCTGATGATT TACTATGAAA TTCTTGATAG GTAGAGTTAG	4200
AGATGTCTGT GGCAACTCTA TTTCGAATCT CTAGATTAAA CTCTTGATC ACTTCAACCT	4260
GATAATTTTT CACTACCCAG TCAAGGAATA TTATCCACA CCAGACAATC ATTTGGTAGA	4320
TTGACAATTT CAAAAACCGC TCTAAATCA TCGCAATTAA TTCATTCAAC ACCAGAGCAT	4380
TAATAGTTGC TGCATAAATT AGCAATAATT GACCAGCAAC AATAAATATC GTTAATAAAC	4440
TAAATTTTTT TATATTTGAT TTTATAATAG TATACACAAT AGTTTCTCAC TTTCTAAATT	4500
TTAATTGAAC ATAGTTTTCA TATATACAAT AGAAAAACC AAAATGATAT AATAACATAT	4560
ATTTCAAAA AGAAATTCGT TAAAAATTTT TTCTTCTCTT GCCTTCTTGA TTACTTTTAA	4620
AGCCTTGCAT TTGTCTCCTA TTAATAGTAA CCGCTTTATG TTTAAAGAAT AATATTTCTT	4680
TGTAACCAAT ATTCTCTCGT TGAAACTCAA TAAATTAAAA TATTTCTAC AGTAATTATA	4740
ATATTCTTCA TCTGCATTAA TTGTTTTTTG TGTCACTCCA GTGATACCGT TTTCTTTACT	4800
GTGAGCGTAG TAATTCACCA AGAATTCTCG CACTATATCA ATTTGGTATC CTTGAACAAG	4860
TAGTTTTAAT AAAACAACAC CGTCCTGATG TGAATCTATT TTCTCAAAAC CATTAATTAA	4920
TTCTAGCACC TCTTTTTTAC ACAACCAAAA TGACGTACCT GCTATATTGT GAACCATTTG	4980
AACAAACAAG GGATTTCCAA CAAAATCGGT CTTCTCCTCT TCTCGTGAC CATTTGGATA	5040
AATTATTATT CCATAACTAC AACTAAAGC TAAATCTTTC ATTCTACTCT TTTTAAACA	5100
AGCCATCAAC TTTAAAATTC GATCTGGCAT ATATTCATCA TCATCGTCTA AAAATGATAT	5160
ATACTTACCT CTAGAATTTT TGATACCTAT GTTCTGCGCA TTAGTTGCAC CTAAATCTTC	5220
ATTACTTAAA ATTAACCTAA TTCTATGATT GGTATAGCCA AATTGATGGA TAATTTTATT	5280
TCTTAAATTT ACATTACTAT AATTATCATC AATAATTATA ACTTCGATAT TTTTATAACT	5340
TTGATGTAAA CAACTTTTCA CAGCTCTAAT CAGAGATTCA TACCTATTAT GTGTTGGTAT	5400

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TATAATACTT ACTAATTCTT GATCTATATT CCTATCCATG ACTACTCTTC TCTAATAATT	5460
CATCATATAC TCTCATGGTT TCTACAAACA TTTTGTGCAC AGAAAAATGT TTTCTTATTT	5520
TTGATTTACT ATTCTCACCT ATATATTTCA AATACTCAGA ATCATTGAGT AAAAAATTAG	5580
CACAAGCACA CACTCCCTCA ACATCTTCCT TCTCAAATAA AAATCCATCA ACCCTATGTT	5640
CAATAATTTT ACTTAACCCG CCAACATTAC TAGCTAAAAC CGGAGTTCCT TGTGACATTG	5700
ACTCTAAAAC ACACATAGGT ATTCCTTCTG TATCAGAAGG AATATACAAT AAATCCGATA	5760
TTTGGTAAAC TATAGTAGCT GGATAGATTT CACCAAGTAA CCTGAAATTA TCTCTACATT	5820
TCAAATGGCA AATTTTTTCT TTCAAAGCAG CCCACATACT ACCATTTCCA GCCATAATAA	5880
AAATCACATC TTCTCTGACT AAAAATAATT TTTCTGCAAA TTCAAGGAAT CTATCCGGCC	5940
TTTTTCTGG ATCCAACCTT CCAACATAAC AAATGATTTT TTGTTATTTG GAATACAAAA	6000
TTCTTTTTTA AAGTCTTGAA CACCTACTAC ATCTAAATCG CTATTTGATA CATTAATTCC	6060
GTTATTTATT GCAACTATCT TCTTATTTT TATTATACTC TCCAATCTTT TTTTCATAG	6120
TTTCAGATAC ACAAATAAAA GCATCTCCCA TAGAATATGT CCAAAAATCA AAATAAGTCA	6180
AGAATTTCTT TTTTAAGTTA TATTCAACCC ATCCATGGCA TGTATCACT GTCTTAACCT	6240
TTCCAAATCC ATTCTGTCA AGTTTTTTTA ACATATATAA AAAATAATTA GTTGAGTAGC	6300
CATGACAGTG TATAAGTTGG ATTTTAAATA ATTTTAAAT ATTTTAAACG TGTAAGGCAG	6360
TTTCAAATTT ATTTGAACAT TGAGTACAAT CAACATAGGC AATATCTAAA TTTTATAAT	6420
CATCAATAAC CTTTGAATCT CTAGATACAA TTATCAAAT AGGGAATAGA GACA	6474

(2) INFORMATION FOR SEQ ID NO: 156:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 4792 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 156:

TATTTAACGA TTTTTTTCAT GTCATTCCT CCAAAATAGA ATACCTTATA ATCTTAACAG	60
AAAAAGAGCA TTTACGCCAT TATATGATAT CTATCTCTGT GATAAGTTTT TTTTATGGGT	120
AATTTAAAAG ACCAAACGCA AGATGGCAAT CAAGACCACT CCAAAGAGAA CTGTTCCGAC	180
TAGATTGCGG TAGCGAAAGG CTACCCAAGC TGTGGAAGG ACGGCTAAGA AGTCCAGTCA	240
TTTGATTTGA GGAAGACTGC CAACCTTACC TGTCCTACG CTTGAAAGAA TCAGGGCAAA	300

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GATAATGGAA ACAGGCAAAA ACTTCAAAAA ACGCTCAACA ATCGCAGGCA GGCCCTTATA	360
CTTGACCAAG ATGAAGGGAA TCATACGGGG AATCCAAGTC ACCAAGCCAG AGAAAATAAC	420
TGCTAATAAA AGATACTTAC TGACCATCTA AAACCACCCC CATGCTACAA CCAAGTAGCG	480
TCGCAAACAG AACAGCTAGT GACTGAGACA TCACTGTCAA GAGCAAAAAG AAGGACACCG	540
CAACAACTGC TAGGATAATG AGCAGATTGC GGACAGGAAT CCGTCTTTGC ATAATCTGAA	600
ATTGCGAAGC AAAATACCAA TAAACATCCC AACCAGGGCA AAATCCAAGC CAAAGATTTC	660
TGGATTTGGT AGCAGGCCAC CCAGAGCCGT TCCGACTACT GTCCCCACAA ACCAAGCCAC	720
ATAGCTGTTA AGATTGTTTC CGTGCAATCCA CATAGGATTT ACCTTGCTCTG TATGGGCCAA	780
TTCACCCATC AAAACGCCAT AGGTCTCATC TGTCAAGATA CTAGACATAC CGATATTGTA	840
CCAAAGACTG GTATGACGGA AATAAGTCGA TGCGTGTAAG CTCAACAAAA AGAGACGCAA	900
GTTGATTAGA AAAACCGTCA TAGCAATAGC TGCCACAGGA GCTTGAACCA CAATCAGTGC	960
CAACATGGCA AACTGGGCAC TCCCAGCATA AACAAAGAGA CTCATCAAGC CCATCTCAAC	1020
AGGTGTCACA TAGGGCGCAC CGATAATTCC ACAGGCCAGG CCGATACTGA CATAGCCAAG	1080
AGCCGTTGGC ATGGCTGCCT GCGCCCCCTC CTAAAATCCT TTTTCTTTCA TCTTTCTCCT	1140
CATATTGTCT TAATAATACT CAATGAAAAT CAAAGAGCAA ACTAGGAAAC TAGCCGCAGG	1200
TTGCTCAAAA CACTGTTTTG AGGTTGCAGA TAGAACTGAT GAAGTCAGCT CAAAACACTG	1260
TTTTGAGGTT GTGGATAGAA CTGACGAAGT CAGCTCAAAA CACCGTTTTG AGGTTGTGGA	1320
TAGAACTGAC GAAGTCAGTA ACCATACCTA CGGCAAAGTG AAGCTGACGT GGTTTGAAGA	1380
GAGTTTCGAA GAGTACAAGT AGGCTGAAAA GAATCCAACC ACAGCATGGA CTATTATATA	1440
GCAGATTGAA ATAAGATGAG AACAAATCGA TTGGGAAAGT AAAATTAATT TCTATAAATG	1500
TTTAGCAAT TGTTTCGTAC TATTTTAGAT TCAGTCTATT ATAACACATT CAGAAAAGAG	1560
AAAAAAGTCT GTTGATTTTG ACCATCATAA AAAGACTGGC AATCCAGTCT CAAACATATA	1620
TTATAGAAAT TCTCCACTAA ATACTTTCAC GAATATTCAG AAGCATAACA AAGGCAACTA	1680
GAAGAAATAG CAATAAAACA AAGCTAACTG CCAGAGTTCC AAAGCTAGTA GCAATGGTTA	1740
CCAAAGCTAT TGTAATAAAG CTAGGTAAAA CAACCGTAAT GGCACCGATA GAGGATTGAA	1800
CTGCTCCCAT TGACTCCTCA GGTATTTGTT TAAAAACGAG TTCTTGCAAT CTAGGAGAGA	1860
GAACACCTGC GAAAAAGGCA TCCAAGGTAC TAAAGATGAG AATCCAGTCA AAACGAACTG	1920
TGGCAAATCC TACTAGAAGA AGCAACTGGA TGACAAGTGA GGCATAGAGA GCTGTTTTTA	1980
TGGAAATGGT ATGTTGCAGA TAGCCACTTA CAAGGCTTCC GACAATCAGG GCTGATAATT	2040
CTAGTGTGGC TAACAAGGCA AGAGATTGAC CAGTTTGTAAT ATTCAAAAAG GGCTGGTTCC	2100

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TTAAAAATAG AGTGGAAATA GGAACCGTAA CATTTATCAC TGCTTGACTA GTAGAGATAA	2160
TAAACAAAAC CAAGAGCACC TTATTCATAT TCCATATCAA TTTCGATGAT TGGAGCAAAT	2220
GCTGGCAAAA GGATTTTACA GAGAGTCCTT CTTGATAGCT AATCGTTTTT TCTACTTTCA	2280
AGAGGTCAGT TTTTATGAAG AGGATACCTA AAAATGCGAT TAAAAAGGTA AGAGCGTTCA	2340
GTAAGGAAAT AAAC TGATG GATAGAATGC CTAGTAAGAC TCCTCCTAGG ATATTACTGA	2400
TTGTTTTTAC TAAACTAACA GTTGACTGTT TAAAGCCAAAT AGCTTCTGCC AGATGGTCTT	2460
GCCCAATAAT TCTAATGAAA ATCGGAGTGA GCATGGCGCC TGAAAAATAA CTCAATGTGT	2520
CAGACAAGAG GTTAATCAGA CAAATAAATG CTA TAGCAA CAAGGAGAAA GACTGCCCTG	2580
AAAGTGATAA AGACACTATA GAGTAAAGCA AAAATTTTGC AAAACTAATG ACTGTGTATT	2640
TCAAGACACG ATGATGTTGA AAATCCGCCA AAAC TCCAG AAAGATTTGT AGAACTTGGG	2700
GCAGGGTTTC TGAAATCGTG ATGAGTAAAA TCGCCAAAGG GGCAAAAGAT GCATCTGCCA	2760
CATAATTCAG GAAGGCCAGA TAAAAAATCG TATCCCCAAG CGTTGAAATC CACTGGTTGA	2820
TAGTTAATTG CCTAAAATCT CTATTTTGAA GAAATACTTT CATCACAACCT CCTTCTTAAG	2880
TTCAAATGGG AATCTTTCCC CAAGGATAGA CCGCGATACT ACTAACAACC AAAATTACAG	2940
TAACATCAAA AGCTGACCAA TGCCATTGTA GACTATATGC AGTCCAATAG GCCAATAAAT	3000
TGACTTTGTC ATTCTAAATA AGACTGCAAA TATAAGACCT CCACCCATAT AGAAGACAAA	3060
GTCTGTCAAG ACCCAACCGT GATTACTAAT GTGCGAGACC CCAAATAAAA CAGCGGAACC	3120
AAGTACATCT AGCCCCATT TCTTTCCTTT TTCCAGAGCA GTCATCACTA ATCCACGATA	3180
AATCATGTCT TCAAAAATGG GACCTGCAAT CACAGGATAA AAAAAATACA TCAAAAATGC	3240
TGTAGCCCCCT GTAAAAGTCG GAGCAGCATG TTGATAAGAA ATTTCAATTC GAGTAGGTGG	3300
GAAAAGAAAA AAGGTAACGA AATTCCAAAC AACAAAAGCA AGCAGAGCTA GGAAGGAATA	3360
GAAAAGATAG GATCCTTTAA ACTTTCTACT ATTGATTTTC TGCCATTTCC CCGACCAAAT	3420
CATAGCAATA AGAGCAAATA AAACCACAAG AAAATTCAAC ATCATATCCG ACAGATAATA	3480
GGCAAAGTCA GATAGCCCAG TAACAAGGTC GCTGCGTAAA ACTAGAACAC TGAACCTCTG	3540
GTCAGCAATA ACTAGTAGAA AAAC TATAAT AAAGTAGCGG TGTGAGATTA TCTTTTTTCAT	3600
ATATCACCTT TCTAATATCC AAATACCAAT AAAGTAACAA TGAGTAAGAA ACTATTCCAT	3660
GAAGCATGCA GAGCTATAGC CCAATAGATG GATCGGGTGT AGCGAAACAT CATACAAAAT	3720
ATCAAGCCCA TTCCAAAATA CTTTATGAAA TCTGTGCTTA TCCAACCATA CTGCAAAACA	3780
TGCATAGCGC CAAATATGGC AGCGGAAACA AGAACATCAA GATAGTATCT CTTAACTTTA	3840

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GATAAACTTG TCATCAAAAG ACCACGACAA ACAACCTCTT CTGATACAGG TCGGATAATA	3900
CTAGTATAAA GTATTGCGGT AACAAAATAG CTAATTCCTG TTAAATTGGT GGCTACTTCT	3960
ACGACTGTAC TTCCATTCTG GGTACGAGGA AAGATATAGG TTGTTAGATT TGCCACACG	4020
AACAATAAGA AAAAAGAAAG AAGGAAAACA CCCAGGTAAG ACCAACGAAA CTGGAAACGA	4080
CCCACTCTT TCCAATGTTT ACTTTTGACA AAAGCAATTG TAGCTATAGT TCCCAGAATA	4140
AGTACCAATA AAACCTGGAA CACATAGTAC ATATTATCAG ACAAAGCAAC CATAAAATCT	4200
AAGTCTGATG TGACATTAAA AATGAGGTAA TAAGTCAAAA TCAACAAGCC AGTTGCTAGG	4260
TGAAATTTCA CTTCTTTCAT TTTCTTCATC CTATTATCTC CTATAAGAGC CTATCTTCTA	4320
CGGCGGCCAA ACAATCCATC TGCTAAATCT ATAGTCCAAT CAAAAGCTCC ACGATTAGGA	4380
CTCATCCCTT GATTGCCCCA ACCAGGGTAA ATTCTTGGA CGCCCCAACC AGATATACCA	4440
CTTCTTCCAC CACCTCCCAT AGAATTTACG AGGTGCGCTC CTCTAACATC TTGCAACTCA	4500
GCTTCTGTCA ATTCCATTGT TTCTGCAAAT TGTAATTTA ACATCTTTA CACTCCTTCA	4560
ATTATCTTCA TTTGTAAACC ACTTCTGCGA CCTAGGATTT GCTTCAAGTG CTTTACAAGT	4620
ACAGTATAAC ACGAACATTG GCTTATTTA GAAAATCGCA TATTTGATAT TTTTCTTAT	4680
AGAAATTTCA GATTGCGAT TTTGGTGAAT TTGATTACTT CTCTGGTATA ATAAAGTTAC	4740
TACTAATGAG GAGTGGAGAA ATATGAAGAA ACAAATTTA ACATTATTGA AA	4792

(2) INFORMATION FOR SEQ ID NO: 157:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 2156 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 157:

CCGTTCTCGG CGACGGCCAT CTGATGAAGC TATTTATGAG GGAACTGGC AAGCTGGAGA	60
GTCAGAGTAT CTAGTCTTTC ACCGATTGCT GTGGCAGCAG ATGTGCAGGG AAAAGGAGTT	120
GCTCAAACCT TCTTAGAGGG CTGATTGAA GGTTTTGATT ATCTTGATT TCGCTCAGAT	180
ACGCATGCTG AAAACAAGGT TATGCAACAT ATTTTGA AAACTTGGTTT TAAACAAGTC	240
GGTAAGATGC CAGTAGATGG CGAACGCTTG GCCTATCAAG AATTAAAGAA ATAATGCAAA	300
AGAAGTATGT AAAATCCTC TACTCCTCAC CAATTGGTAT TCTATCACTT GTAGCTGATG	360
ACCATTTATT GTATGGAATT TGGGTCAGG AGCAGAAGCA TTTTGAGAGG GGACTAGGAG	420
ATGAAACGAT AGAAGAAGTT GTTAGTCATC CTATTTTGA CCCAGTTATT GCTTGCTTAG	480

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ATGATTACTT TAAAGGCAAG CCTCAGGATT TATCCAACCTT GCTCTTGGCG CCAATCGGAA	540
CGAATTTTGA AAAGAGAGTT TGGGACTATT TACAGGGCAT TCCTTATGGT CAGACAGTGA	600
CCTATGGACA AATTGCTCAA GACCTGCAAG TGGCTTCTGC TCAAGCAATT GGTGGAGCAG	660
TGGGACGCAA TCCTTGGTCT ATCCTAGTAC CTTGTTCATCG TGTGTTGGGA GCAGGCAAGC	720
GTCTGACAGG TTATGCTGCA GGAGTGGAAG AGAAAGCTTG GCTCTTGGAG CATGAAGGAG	780
TAGATTTTAA AGATAGAAGC AATAGAAGGA GAAGCACATG TTAGAATTTA TCGAATACCC	840
CAAATGTTCA ACTTGTAATA AAGCAAAACA AGAATTAAAT CAATTAGGTG TGGACTATAA	900
AGCCGTCCAT ATCGTGGAAG AAACACCTAG CCAAGAAGTC ATTTTGAATT GGCTAGAAAC	960
CTCAGGATTT GAATTGAAGC AATTTTTCAA CACCAGTGGT ATCAAATACC GTGAATTAGG	1020
GCTAAAAGAT AAGGTAGGAA GTTTGTCAAA CCAAGAAGCG GCTGAGTTGC TAGCAAGTGA	1080
CGGTATGTTG TTAACCGGC CCATTTTAGT AGAAATGGA ACTGTTAAGC AAATCGGTTA	1140
TCGAAAATCT TATGAGGAAC TGGGACTGAA ATAGTTTTTA TCTATCTCTT TGATAGATAA	1200
AATATATAAC TTCCCTGTTT CAAAGTATGA TAACTAGTA GGTAGACAAA GTCTGTATCT	1260
GACCGTAGCA AATAATTTCA TTGACGGCAG AAGCATGGTA GCATGAATCA TTATCAGAAG	1320
AGGATGTTTT TATGAATGTT ACAACGATTT TAGCATCAGA TTGGTACCAA AACTTGATGC	1380
AATTGATTCC GGATGGCAAG CTGTTTAGCC TACGTTCCGT CTTTGATGGA ATCCCTAGAA	1440
TTGTCCAACA ACTTCCAACA ACAATTATGT TGACAATTGG TGGTGCCCTT TTTGGCTTGG	1500
TTTTGGCGCT TCTTTTGGC ATTGTGAAGA TCAATCGTGT CAAGATTTTA TATCCCTTGC	1560
AGGCCTTCTT TGTTAGTTTC TTAAGGGA CACCGATTTT GGTGCAACTC ATGTTGACCT	1620
ACTACGGAAT CCCTTTGGCT TTGAAAGCCC TCAATCAGCA ATGGGGAACCT GGTCTCAATA	1680
TCAATGCGAT TCCAGCTGCA GCTTTTGGC TTGTCCGCTT TGCCTTTAAT GAGGCAGCTT	1740
ATGCTAGTGA AACCATTTCG GCAGCCATTC TCTCAGTTAA TCCTGGTGAG ATTGAGGCGG	1800
CACGCAGTCT GGGTATGACC CGAGCGCAAG TTTATCGACG AGTGATTATT CCTAATGCAG	1860
CGGTGGTAGC TACTCCAACC TTGATTAATT CCCTCATCGG TTTGACCAAG GGAACATCTC	1920
TAGCTTTTAG TGCGGTGTT GTGGAAGTCT TTGCCCAAGC TCAGATTCTA GGTGGAGCTG	1980
ATTATCGCTA TTTTGAACGC TTCATCTCCG TTGCCCTTGT TTATTGGGTA GTCAATATCG	2040
GAATTGAAAG CCTCGGTCGT TTCATCGAGA GAAAAATGGC TATTTCTGCA CCTGATACAG	2100
TGCAACAGAT GTGAAAGGAG ACCTTCGTTA ATGATTAAGA TTTGAATTT AAGCAA	2156

(2) INFORMATION FOR SEQ ID NO: 158:

1030

- (i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 3140 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 158:

GTATCTCTAC ACATGTCTTC AATCGATTTT GTTGTCTCC AATTTAATTC CTTATATGCT	60
TTGTCTGCAT TTGCATAACA AGTTGCAACG TCTCCTGAAC GTCTTGGAAC TATTTTATAA	120
GGAATAGGGA TCTTATTAACT ACTTTCAAAT GTATTTACAA GTTGTAATAC ACTAGTGCCT	180
TCTCCCGAGC CTAGGTTATA GATATAAACA TCTGTTTTTT CAGATACTTT TTCTAAAGCT	240
TTTATATGTC CTATTGCTAA ATCTACTACA TGGATATAAT CACGCACACC AGTACCATCA	300
AGCGTATCAT AATCATTTCC GAACACACTT AGCTCTGATA GCTTACCTAC CGCTACTTGT	360
GCAATATAAG GCATCAAGTT GTTAGGAATT CCTGAGGGAT CTTCCCCAAT CAAACCAGAC	420
TCATGAGCAC CAATTGGATT GAAATAACGA AGCAACGCAA TACTCCATTC TGAATCTGCC	480
ACATGAACAT CTTTTAAAT TTGCTCAAGC ATCACTTTTCG TATACCCATA AGGATTTGTC	540
GCACTTGTTT GCATCGTCTC AATTAGAGGT GACTGATTGT TAATTCCATA TACAGTCGCA	600
CTTGAAGAAA AGACAATCTT TTTAACATTA AATTCTGACA TCACCTCAAC AAGTGCCAAT	660
GTACTCATAA TATTATTTTT GTAGTACATC ACAGGCTTTT GCACGGATTC TCCGACAGCT	720
TTATAACCTG CAAATGAAT TGCAGCATCA ATCGATTCTT GTTCAAATAC CTTTCTCAAT	780
GCTTGTTTAT CACAAACATC TAATTCGTAA AACACGGGAC GTATTCCTGT AATTGCTTCA	840
ATACGGTCTA GCACCAAGAT GCTAGAGTTC GAAAGGTTGT CGACAATGAT AACTTCCTTT	900
CCTAAATTTA GTAATTCTAC TACGGTATGG CTACCAATAT AACCAGCTCC GCCTGTTACC	960
AATATTGCCA TCTGGGTTTC CTCCTAATTA ATTCCAACCG ACTTAACAAA TCTCATAAAC	1020
GCTTCATGCC CAGACGGTGT ATTCTTATAA ACTCCTGCAT CTTCCAGAAC TCTCGCAAAC	1080
ACTTGTCCTG CTTCTGTGTG AACTACGCTA TTAACCTCTT CTTTATTAAT GCGAGGATAT	1140
TTTTCTTTCA ATTGGTCGGC CCATTCTAAA TGATAATCCG CAATTGCATT ATCCTCTCCT	1200
AAAAGATATT TTCCAACCTC TTCTAACTCT GGTTCCAAAC GAGGTGGTAA TATCGCAAGT	1260
CCCATCACTT CGATTAAACC GATATTTTCC TTTTAAATAT GTTGACATC TTGATGAGGA	1320
TGGAAAACAC CATCTGGGTA TTGTTAGTA GTATGATTAT CTCTTAGAAC AATATCTAAT	1380
TCGTATCTCC CGTCCACTTT ACGAGCAATA GGAGTCACCG TATGGTGTGG GACATCTTCA	1440
GTATAGCAA TGATGTCTAC TTCTAAATCT GAATATTCTC TCCACTTATT TAGAATTTTA	1500

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GTAGCTAAAT CTAACAAGCG ATTTTATTT TCACTTTGTA ACCTAATTAC TGACATTGGC	1560
CATTTTACAA TACCAGCATT AACATCCTCA AAGTCTTTAA AACAAAATTC ACTCTCAAAT	1620
TTTGCTTTTT CCATTGGGAA AATATGTTTC CCTCCCTGGT AGTGGTTATG ACTAAGAATG	1680
GAGCCTCCTG AGATAGGAAG ATCAGAATTT GAACCAGCAA AATATCCTGG CAAAATATCA	1740
ACAATCTCCA ATAATTGTTT AAATGTTTTA GAGGTAATAG CCATTGGTAC ATGTTGACTA	1800
TTCAAAAATA TCGCATGCTC ATTAAAGTAT GAGTAGGGAG AATACTGGAA TCCCCATACT	1860
TCGTCACCAA GTTCAACCG AATAATTCTA TGATTGGAAC GTGCTGGATA ATTTATTGCG	1920
CCCTGATATC CTTCAATTTT CATACATAGT AAACATTTGG GATAATTAGT TGCTTTTACT	1980
AATTTTTCAG CAGCAATTGT TTTTGGATCT TTTTCGGGTT TTGACAAAT TATCGTAATC	2040
TCTAGCTCTC CGTATTTAGT TGATGCTCGA AACTCAATAT TCTTAGCAAT AGCAGAAGTT	2100
TTAATATAAT CACTATCTTT ACTTAACTTA TAAAACTCTT CAACTGCTTC TTGAGGTGAT	2160
ATATCATATG AACTCCAAAA AATATCATTT AATCGACTAG GTAAAGGAAC TATGAAATTC	2220
ATTAACTCTG CTCCTAAACA TTCCTTTTCC TCGATTAAAT CTTTAATTTT ACCGTTTTTT	2280
AAGGCGATTT CCACTAAGTA ATCTTTTATT TGTTTCAGGT CATTTTCATC GGAAATGCCA	2340
TCAATTCCTT CCTCACCTAT TAACGCTAGT ACTCTATTTT TCACATATAT TTTGTCAATT	2400
TCATTATACA TTCCGTATTC AATTACTCTA TCAACAAAAT TATCAATAAT TGTTTTCATA	2460
TATTTTCTT TCTAATTTAT GTTCCCATAT TTTCTATACA TTATCCATTT ATAAATTGCT	2520
TGCGTAGTAT GAGCAATTTT ATCAAGGTGA TGAATAATAT CTAAAGCACT AATTACTTCA	2580
GAAACGTTCC CATCATCTTC AAATATGTAA TTCATTATTT TCTTTTCCAT ATTTATACTA	2640
AGCTCTTCTA TCTCAATCTG TTTTGTGATA ACAACCATAT CTAAACATCC AGATTGTTCC	2700
TCTCTATAAC AAGATATAGC CCTATTCATA TGCAGTCCGA TAACTTCATG AAGTATTTTT	2760
ATTTTGGAAA TAATTTTCTT CAAAATTCA TTATTTTGAA GAATCTGTAG ATTTTAAAA	2820
ATTCAACAA TTCTATCCCC AATACGTTCA ATGTCAGTTG ATATTTTAT TACACTAATA	2880
ATTCTTCTTA AGTCATATGA AACAGGATGT TGTAACAAA TTAATCATA TCCTTTTTTA	2940
TCAATATTTA GAACTGACTC ATTTATGATT AAATCTTCTT TAATCAATTC TACTCGTTCT	3000
TCATTTGATA AATATTCAA TAACTTCTCA TATTTATCAA GCACAGATAC CCAATGGTC	3060
TCTAAATTAT TTGATAATTC TATAATTTCA TTTTCTAAAT ATAACCTTAA CATTTAGGTA	3120
CCTCTTCTTA ACAAAGTTCC	3140

(2) INFORMATION FOR SEQ ID NO: 159:

1032

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 9048 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: double
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 159:

CCGGATGATT TCCTGGTCAG ATAGGGGGAA AGTGACTTCC TCAGCAATCG CGCGTAGAGT	60
AGGATTCCCT TCACGGATAA TATCGTTCAT ATCAATTAAG TGAGCAGCTT TTGTAATACG	120
TTCTATTGCA GACATTTTCT CTCCTTATAT TATGTTTAGT GCAGTTAGCT ACTGCCAAAG	180
CCCAAGTGGT ATACTTGGAA TAAGCCACTG TGGATTAGTT CATTTTCTTT CATTACCTCT	240
ACATGATATC ACAAATGAC AAGAATTGAA AGCATTATGG CATTTAGGAT TTATAGAAAA	300
TAGATAGGAA GTTCAATTCA ATTGTGAAAG AAATACTTAT CTGTGATATA ATAAAAAGAA	360
AAGGCTTGCA TAAGAAAGTA GGGAGAACGA AGATACAAAG AAGACAAAAT CGAAATCAGG	420
GTGGTTTAGC TTTTCGTTTT ATGAAGGGCT TGGTAACTT TTTAGGAGTT ATCGCAAGTG	480
GAGCAATAAG GGATTGTGG CGATACTCTT GCTAGCAGTT GGTTTATCAA TGGGCTTGGT	540
CTTGTTGTTT GAAAGCTTCC AAGGAATCCC TTGACTAGTC AAAAACGAGA TACTATTTCT	600
CAAGAGGGGA CTAAGCAAAA GTCTCAGCAG TAGGAAGAGG AAAAACTGC CAGAATTATG	660
GCCCACGGGG ATTTGCTCTA CCACGATGGA CTTTTCTTTT CAGCTAAAAA AGAAGACGGT	720
ACCTATGACT TTCATGAAAA TTTGAGTAT GTGACTCCTT GGCTCAAGCA AGGGGACTAA	780
GCAGCAGATT TAGCTATTGG TGATTTTGAA GGAACCATTA ATAAGGATCA TTATTTAGCG	840
GGTTATCTTC TCTTTAATGC TCCTGTTGAA GTTATGGATG CTATTAAGGA GGCAGGTTAT	900
CATGTGCTGG ATTTAGCTCA TAATCATATT TTGGATTGCG AAATTGAGGG AGTTATTTCA	960
ACGGCCGATA TTATTGAGAA AGCTGGAATC ACTCCAATCG GAGTTTATAC GCACGAACCA	1020
CGTGATCAGG CTCCGCTGGT CATTAAAGGAA GTGAATGGTA TCAAGGTTGC ATTGTTAGCC	1080
TATTCCTATG GTTCAATGG AATTGAGCAG TATATTTCTC AGGAAGACTA TAATCGTTAT	1140
CTTTCAGATT TAAACGAAGA TAAGATGAAG GTTGAAATTG AACGGGCAGA GAAGGAAGCA	1200
GATATCACCA TTATCATGCT TCAGATGGGT GTTGAGTATC GATTGGAACC AACTGAAGAA	1260
CAAAAAGCTC TTTATCACAA GATGATCGAT TTGGGAGCGG ATATTATCTT TGGAGGGCAT	1320
CCTCACGTTG TTGAACCATC TGAAACGGTT GAAAAAGATG GAGATAAGAA ACTCATTATC	1380
TATTAAATGG GGAACCTCAT TTCCAATCAA CGAATTGAAT CTATGGGAGA TGAAGAGAAT	1440
GCTAAGTGGG CTGAACGTGG TGTTCATG GATGTCACCA TCAAGAAGAA GGATGGAAAA	1500

1033

ACAACTATCG GAACAGCTAA AGCTCATCCT ACTTGGGTCA ATCGAACACC AAAGGGAACC	1560
TTTTCACCAG AAGGATATCC CTTGTATCAT TACCAACTT ATATTTTGGA AGATTTTATA	1620
GAGGATGGCA GTCATCGTGA CCAGTTAGAT GAAGCGACTA AGGAACGAAT TGATACAGCC	1680
TATAAAGAAA TGAATGAACA TGTGGGATTG AAGTGGTATT AGCTTGAATC CAGAGGAAAG	1740
TAAATGATGA TTAAGGTAAT TGCACAGAT ATGGATGGGA CCTTGCTGGA TGCTAGAGGT	1800
CAGCTTGATC TCCCACGATT GGAAAAGATT TTAGATCAGT TGGATCAAAG GGGCATTCTG	1860
TTTGTCAATTG CGACGGGCAA TGAAATTCAC CGCATGAGAC AACTACTGAG TCCCTTGGTG	1920
GATCGAGTGG TTCTGGTTGT TGCTAATGGC GCTCGTATTT TTGAAAACAA TGAATTGATT	1980
CAGGCTCAGA CATGGGATGA CGCCATTGTC AACAAGGCTT TGAATCATT CAAGGGTCGA	2040
GCGTGTCAAG ACCAGTTTGT TGTAACGGGG ATGAAGGGTG ATTTTGTCAA GGAAGGTACG	2100
ATTTTACAG ATCTTGAAAG TTTTATGACT CCAGAAATGA TTGAAAAATT CTACCAACGG	2160
ATGCAATTTG TGGATGAATT AACATCTGAC CTCTTGGTG GTGTGCTCAA GATGAGCATG	2220
GTTGTTGGTG AGGAACGTTT GAGTTCGGTT TTGGAAGAAA TCAATGCTCT CTTTGATGGC	2280
CGTGTCGAG CTGTATCCAG TGGCTATGGT TGCATTGATA TCCTCCAAGC TGGGATTCAT	2340
AAAGCATGGG GCTTGGAGGA ATTACTCAAG CGCTGGGACT TGAAATCCCA AGAAATCATG	2400
GCTTTTGGTG ATAGTGA AAA TGATGTTGAA ATGCTTGAAA TGGCTGGAAT TGCCTATGCC	2460
ATGGAAAATG CTGATGAGAA AGCCAAAGCT GTGGCGACTG CTCTAGCACC AGCCAACAGC	2520
CAAGGAGGAG TTTATCAAGT CTTGGAAAAC TGGTTAGAAA AAGGAGAATG AAGTGGCAGT	2580
ACAGTTATTA GAAAATGGC TCCTAAAGGA ACAAGAAAAA ATTCAAATA AGTATCGTCA	2640
CCTAAATCAC ATTTCTGTTG TAGAACCAAA CATTCTTTT ATTGGGGATT CCATTGTCTGA	2700
GTATTATCCT CTACAGGAGC TATTTGGGAC TTCAAAGACG ATTGTCAATC GAGGAATTCG	2760
TGGCTATCAG ACAGGACTGT TACTAGAGAA CCTTGATGCT CATCTATATG GTGGAGCAGT	2820
AGATAAAATT TTTCTTCTGA TTGGGACAAA TGATATCGGA AAGGATGTTT CTGTGAATGA	2880
GGCTCTCAAT AATCTCGAAG CTATCATTCA ATCCGTTGCT CGCGATTATC CATTGACAGA	2940
GATTAAATTG CTTTCCATTT TGCCTGTCAA TGAGAGAGAG GAGTACCAGC AGGCAGTCTA	3000
TATCCGCTCG AATGAAAAA TTCAGAACTG GAATCAAGCC TATCAAGAGC TTGCATCTGC	3060
CTATATGCAG GTGGAATTTG TGCCAGTATT TGATTGTTT ACAGACCAAG CAGGCCAACT	3120
CAAAAAGAA TATACAACTG ATGGACTGCA CCTCAGTATT GCTGGTTATC AGGCTTTGTC	3180
AAATCCTTG AAAGACTATC TTTACTAAAT AGCTAAATAA TGTAAATTT GAGCATAATA	3240

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TCTTGTA AAAA AATTCTAAAA TCCTTTAAAA TAAAAAGTGA CGGAGGAATT TATGAATGTA	3300
AATCAGATTG TACGGATTAT TCCTACTTTA AAAGCTAATA ATAGAAAATT AAATGAAACA	3360
TTTTATATTG AAACCCTTGG AATGAAGGCC TTGTTAGAAG AATCGGCCTT TCTGTCACTA	3420
GGTGACCAAA CGGGTCTTGA AAAGCTGGTT TTAGAAGAAG CTCCCAGTAT GCGTACTCGT	3480
AAGGTAGAGG GAAGAAAAAA ACTAGCTAGA TTGATTGTCA AGGTGGAAAA TCCCTTAGAA	3540
ATTGAAGGAA TCTTATCTAA AACAGATTCG ATTCATCGAT TATATAAAGG TCAAATGGC	3600
TACGCTTTTG AAATTTTCTC ACCAGAAGAT GATTTGATTT TGATTCATGC GGAAGATGAC	3660
ATAGCAAGTC TAGTAGAAGT AGGAGAAAAG CCTGAATTTT AACAGATTTT GGCATCAATT	3720
TCTTTAAGTA AATTTGAGAT TTCTATGGAA TTACATCTCC CAACTGATAT CGAAAGTTTC	3780
TTGGAATCAT CTGAAATTGG GGCATCCCTT GATTTTATTC CAGCTCAGGG GCAGGATTTG	3840
ACTGTGGACA ATACGGTTAC CTGGGACTTA TCTATGCTCA AGTTCTTGGT CAATGAATTA	3900
GACATAGCAA GTCTTCGCCA GAAGTTTGAG TCTACTGAAT ATTTTATTCC TAAGTCTGAA	3960
AAATTCTTCC TTGGTAAAGA TAGAAATAAT GTTGAATTGT GGTTTGAAGA AGTATGAAGT	4020
GGACCAAGAT TATTAAAAAA ATAGAAGAAC AAATCGAGGC AGGGATTTAT CCCGGAGCCT	4080
CTTTTGCGTA TTTAAGGAC AATCAATGGA CAGAGTTCTA TTTAGGCCAG AGTGACCCAG	4140
AGCATGGCTT GCAGACTGAG GCAGGACTAG TTTATGACCT AGCTAGTGTG AGCAAGGTTG	4200
TTGGGGTTGG CACAGTTTGT ACCTTCTTGT GGGAAATAGG TCAATTAGAT ATTGATAGAC	4260
TGGTAATAGA TTTTTTACCT GAGAGTGATT ATCCAGACAT CACTATTCCG CAGCTCTTGA	4320
CTCATGCAAC AGACCTTGAT CCTTTTATTC CTAATCGTGA TCTTTTAACA GCCCCTGAAT	4380
TAAAGGAAGC GATGTTTCAT CTCAACAGAC GAAGTCAGCC AGCCTTTCTT TATTGGGATG	4440
TCCATTTTTT GCTGTTGGGC TTTATTTTGG AAAGAATTTT TAATCAAGAT TTGGATGTGA	4500
TTTTAAAGGA TCAAGTCTGG AAACCTTGGG GAATGACGGA AACTAAGTTT GGGCCAGTTG	4560
AGCTTGCTGT TCCAACAGTT AGAGGTGTAG AGGCAGGCAT AGTGCATGAT CCCAAGGCTC	4620
GTCTCCTGGG TAGACATGCT GGGAGTGCTG GTTTATTTTC GACTATAAAG GATTTACAAA	4680
TCTTTT TAGA AACTATTTA GCAGATGATT TTGCAAGAGA CTTAAATCAA AATTTTCTC	4740
CTTTGGATGA CAAGGAACGT TCTTTAGCAT GGAATTTGGA AGGAGATTGG CTAGACCATA	4800
CGGGCTATAC AGGTACCTTT ATCATGTGGA ATCGTCAGAA GCAAGAAGCC ACTATTTTCC	4860
TATCGAATCG TACCTATGAA AAGGACGAGA GAGCTCAATG GATATTAGAC CGCAATCAAG	4920
TGATGAACTT GATTCGCAAA GAAGAGTAAG GAGAGACATG TCAAATAGTT TAAAAGGGAC	4980
TTTACTAACA GTTGTGGCTG GTATTGCTTG GGGTTGTCA GGAACGAGTG GCCAATACCT	5040

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AATGGCACAC GGAATTTTCGG CTCTGGTCTT GACTAACTTG CGTCTTTTAA TCGCTGGTGG	5100
AATTCTCATG CTCTTGGCTT ATGCTACTGC AAAGGATAAA ATACTGGTCT TTTTAAAGGA	5160
TAGAAAGAGT TTGCTGTCTC TTCTTATTTT TGCTCTGATT GGTCTTTTTC TCAACCAATT	5220
CGCCTATCTG TCTGCTATTC AGGAGACCAA TCGGGAACA GCGACGGTGC TTCAGTATGT	5280
TTGTCCTGTC GGAATTTTAA TTTATAGCTG TATCAAGGAT AGGGTGGCAC CGACACTGGG	5340
AGAGATAGTT TCCATCATAT TCGCCATCGG AGGAACCTTC CTGATCGCAA CACATGGGCA	5400
GTTGGACCAG TTATCCATGA CACCTGCTGG TCTGTTCTGG GGTCTCTTTT CTGCCTTGAC	5460
TTATGCTCTG TATATCATTT TACCCATAGC CTTGATTAAA AAGTGGGGGA GCAGCTTGGT	5520
CATTGGTGTG GGAATGGTCA TAGCAGGTTT GGTGCCCCCTT CCTTTTACAG GGGTTCTACA	5580
GGCCGATATC CCGACTAGTC TTGATTTTCT CCTTGCCTTT GCAGGCATTA TCCTTATCGG	5640
GACTGTCTTT GCCTATACAG CTTTCCTTAA AGGAGCCAGT CTGATAGGAC CGGTCAAGTC	5700
AAGCTTGTTG GCTTCAATTG AGCCAATATC GGCGATTTTC TTTGCCTTCT TAATAATGAA	5760
TGAACAATTT TATCCCATTG ATTTTCTTGG TATGGCAATG ATATTGTTTG CTGTAACCTT	5820
GATTTCTTTG AAAGATTTAT TCTTAGAAAA ATAAAAAGA CTCTTGTGCC GTGACAGAGA	5880
GTTTTTGCCT GGTAATCTAA TTATTTTCAA GATAAAATTC AAAGCGTTCG CCTACATATT	5940
GACTTTTAC GTATTCAAAA GCAGTACCAT CTTCTAGGTA GGAAACCTGG GTCAATCCAA	6000
GAATAGCATG TCCTTTTCA ACTTCCAAAT AGTGGGCAAT CTTTCTTTA GCAAGGCGAG	6060
CATAGATGGT CTGTTGAGAT TTGCCGATAC GATAGCCATG TTTTGAAG GTTTGGAAGA	6120
AATGACTGGT GATTTCTTCT TTTTAAAGT CCTTAATGAA TTTTTCAGGA ATAGAAGCAA	6180
CTTCATAAAC TAGGGGAAC TGGTCGGCAT AGCGGACCCG CTCCATTCGG ATAATATTGT	6240
CCGTGGAAG AATTCCTAGC TTGGCAACTT CTGCTCATT GGAATGGTT TTTTGTAGG	6300
AAATGAGCTG GCTAGAGGGA ACTTTACCTT GGGATTTGAC AATTTAGTA AACTGGTTG	6360
TCCCTCGCAT CTTTCTTGT ACTCGAGTAC TGGAAACAAA GGTGCCGCTT CCTACACGGC	6420
GCTCTAAGAC GCCTTCTTCG ACTAATAGAG ATACGGCTTG GCGGAGGGTC ATGCGACTGA	6480
CCGCAAACTG CTCAGCTAAA TCTCTTTCAC TGGGAAGCCT CTCACCAATA GCCCAACGGT	6540
ACTCGTCAAT ATCCTTTTTT ATCTGATCAT GGATTTTAT ATAAGCAGGT AGCATATTTT	6600
TCACTTCATT TCTATCTTTT CTCTATTGTA CCCCATAAAA CTAGAAAAAG TCAAACCTCG	6660
CCTTGTTTAG TTGGTAATTC GCCCTTATTT GTGATAGAAT ATTGAGAAAA GATATTTCTT	6720
TTGAGAAAGG AAAAAGATGA GCAACATTTT AACTGATTTG CAAGATGTAG AAAAAATCAT	6780

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CGTATTGGAC TATGGTAGCC AGTACAACCA GCTGATTTCA CGCCGTATCC GTGAGATTGG	6840
TGTTTTTTCA GAACTAAAAA GCCATAAAAT TTCAGCTGCT GAAGTTCGTG AAGTCAATCC	6900
TGTAGGAATT ATTCTATCAG GTGGTCCAAA TTCTGTATAT GAAGATGGTT CATTTGATAT	6960
TGACCCAGAA ATCTTCGAAC TCGGAATTCC AATTTTGGGA ATCTGTTATG GTATGCAGTT	7020
ATTGACCCAT AAACCTGGAG GAAAAGTTGT TCCTGCAGGT GATGCTGGAA ATCGTGAATA	7080
CGGTCAATCA ACCCTAACTC ACACACCATC AGCGCTTTTT GAATCAACAC CTGATGAACA	7140
GACTGTTTTG ATGAGCCATG GTGATGCGGT TACTGAGATT CCTGCTGACT TTGTTGCTAC	7200
AGGTACATCA GCTGACTGCC CATA CGCAGC CATCGAAAAC CCAGATAAAC ACATTTACGG	7260
TATCCAATTC CACCCAGAAG TTCGTCATTC TGTATACGGA AATGATATCC TTCGTAACCT	7320
TGCCCTTAAC ATTTGTAAGG CTAAAGGTGA CTGGTCAATG GATAATTTCA TTGACATGCA	7380
GATCAAAAAA ATTCGTGAAA CCGTCGGTGA TAAACGTGTC CTTCTTGGTC TATCAGGTGG	7440
TGTTGACTCA TCTGTCGTTG GGGTCTCTCT CCAAAAAGCG ATTGGCGATC AATTGATCTG	7500
TATCTTCGTA GACCACGGTC TTCTTCGTAA AGGCGAAGCT GATCAAGTTA TGGACATGCT	7560
CGGTGGTAAG TTTGGTTTGA ATATCGTCAA AGCAGACGCT GCTAAACGTT TCCTTGACAA	7620
ACTTGCTGGC GTTTCTGACC CTGAACAAAA ACGTAAAATC ATCGGTAACG AGTTTGTCTA	7680
TGTATTGAT GACGAAGCAA GCAAGCTCAA AGATGTGAAA TTCCTTGCTC AAGGTACTTT	7740
ATATACAGAT GTTATCGAGT CTGGTACGGA TACAGCTCAA ACTATCAAGT CACACCACAA	7800
CGTGGGGTTC TTCCAGAAGA TATGCAGTTT GAATTGATTG AACCACCTCAA TACTCTTTAC	7860
AAGGATGAAG TTCGTGCTCT TGGTACAGAG CTTGGTATGC CAGACCATAT CGTATGGCGC	7920
CAACCATTCC CAGGACCAGG ACTTGCTATC CGTGTCATGG GTGAAATCAC TGAAGAGAAA	7980
CTTGAAACCG TTCGTGAATC AGACGCTATT CTTGCTGAAG AAATCGCTAA AGCTGGACTT	8040
GACCGCGATA TTTGGCAATA CTTCACTGTT AACACAGGCG TTCGTTCACT CCGTGTATG	8100
GGTGACGGTC GTACGTATGA CTACACGATT GCAATCCGTG CTATCACTTC TATCGATGGT	8160
ATGACTGCTG ATTTTGCCAA AATTCCATGG GAAGTACTTC AAAAAATCTC AGTACGTATC	8220
GTAAATGAAG TGGATCATGT TAACCGTATC GTCTACGATA TTACAAGTAA ACCACCTGCA	8280
ACAGTTGAGT GGGAAATAATC GCAAAAAAAT TAAAAGCTTT GTAAATCAA CGGTTACAGA	8340
GGATTAAAAA CTGTAACCTG GATTAAAAAC GGAACATTTG CTAAAAAGAA TAAATTGAAT	8400
AATAGTTCCA AGTGGTTTAC ATTTGGACAA AAAATTAGAC CGTAGTTTTT AAGCTGCGGT	8460
CTTTTGATAT ATATAATGAG AATTAATGGC TCTTTGTCAA CTGTAGTGGG TTGAAGTCAG	8520
CTAAGCTCGA GAAAGGACAA ATTTTGTCTT TTCTTTTTTG ATATTCAGAG CGATAAAAAT	8580

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CCGTTTTTTG AAGTTTTCAA AGTTCCGAAA ACCAAAGGCA TTGCGCTTGA TAAGTTTGAT	8640
GAGATTATTG GTCCCTTCCA ATTTGGCGTT AGAATAGTGT AGTTGAAGGG CGTTGACGAT	8700
TTTCTCTTTG TCCTTTAGAA AGGTTTTAAA GACAGTCTGA AAAAGAGGAT GAACCTGCTT	8760
TAGATTGTCC TCAATGAGTC CGAAAAATTT CTCCGGTTCC TTATTCTGAA AGTGAAACAG	8820
CAAGAGTTGA TAGAGCTGAT AGTGATGTTT CAAGTCTTGT GAATAGCTCA AAAGCTTGTT	8880
TAAAATCTCT TTATTGGTTA AATGCATACG AAAAGTAGGG CGATAAAAAT GTTTATCGCT	8940
GAGTTTACGA CTATCCTGTT GTATGAGCTT CCAGTAGCGC TTGATAGCCT TGTATTCATG	9000
AGACTTTCGA TCCAATTGAT TCATGATTG AACACGCACA CGACTCGG	9048

(2) INFORMATION FOR SEQ ID NO: 160:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 10399 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 160:

GTACCTTTAT TGATGAATGG ACTGTTTAAA TCAGTAGCAC GCCAACCAGA TATGCTTTCT	60
GAGTTTCGTA GTTGATGTT TTTAGGTGTT GCCTTTATTG AAGGAACTTT CTTTGTAAC	120
CTTGTCTTCT CATTTATTAT CAAATAAATA CATGGAACGA GAAGAAAAGG GAGGATTTTA	180
GATGGAAGAA AGTATTAATC CAATCATCTC TATTGGTCCT GTTATCTTCA ATCTGACTAT	240
GTTAGCCATG ACTTTGTTGA TTGTGGGAGT TATTTTGTG TTTATTTATT GGGCAAGCCG	300
CAATATGACC TTGAAACCCA AAGGAAAGCA AAATGTACTT GAGTATGTCT ATGACTTTGT	360
TATTGGATTT ACAGAACCTA ACATTGGTTC GCGCTACATG AAAGATTACT CACTCTTTTT	420
CCTTTGTTTA TTCCTTTTCA TGGTGATTGC CAATAACCTT GGCTTAATGA CAAAGCTTCA	480
AACGATCGAT GGGACTAACT GGTGGAGTTC GCCAACCCTT AATTTACAGT ATGACTTAAC	540
CTTATCTTTT CTTGTCATTT TGTGACACA TATAGAAAGC GTTCGTCGTC GTGGATTTAA	600
AAAAAGTATA AAATCTTTTA TGAGTCCTGT TTTTGTGATA CCGATGAATA TCTTGAAGA	660
ATTTACAAAC TTCTTATCTT TGGCTTTGCG GATTTTGGG AATATCTTTG CAGGAGAGGT	720
CATGACGAGT TTGTTACTTC TTCTTTCCCA CCAAGCTATT TATTGGTATC CAGTAGCCTT	780
TGGAGCTAAT TTGGCTTGA CTGCATTTTC TGTCTTTATT TCCTGCATCC AAGCTTATGT	840
TTTTACTCTT TTGACATCTG TGTATTTAGG GAATAAGATT AATATTGAAG AGGAATAGAA	900

1038

AGGAGTAACT GATGCACGTA ACAGTAGGTG AATTAATTGG TAATTTTATT TTAATCACTG	960
GCTCTTTTAT TCTTTTGCTA GTCTTGATTA AAAAATTGTC ATGGTCTAAT ATTACAGGCA	1020
TTTTCGAAGA AAGAGCTGAA AAAATTGCTT CAGATATTGA CAGAGCTGAA GAAGCCCGTC	1080
AAAAAGCAGA AGTATTGGCT CAAAAACGCG AAGATGAATT GGCTGGTAGC CGTAAAGAAG	1140
CTAAGACAAT CATTGAAAAT GCAAAGGAAA CAGCTGAGCA AAGTAAGGCT AATATCTTAG	1200
CAGATGCTAA ACTAGAAGCA GGACACTTAA AAGAAAAAGC CAATCAAGAA ATTGCTCAA	1260
ATAAAGTAGA AGCTTTACAG AGTGTTAAGG GTGAGGTGCG AGATTTGACC ATCAGCTTAG	1320
CTGGTAAAAT CATCTCACAA AACCTTGACA GTCATGCCCA TAAAGCACTC ATTGATCAGT	1380
ATATCGATCA GCTAGGAGAA GCTTAATGGA CAAGAAAACA GTAAAGGTAA TTGAAAAATA	1440
CAGCATGCCT TTTGTCCAAT TGGTACTTGA AAAAGGAGAA GAAGACCGTA TCTTTTCAGA	1500
CTTGACTCAA ATCAAGCAAG TTGTTGAAAA AACAGGTCTG CCTTCTTTTT TAAAAACAAGT	1560
GGCAGTAGAC GAGTCGGATA AGGAAAAAAC AATTGCTTTT TTCCAAGATT CTGTGTCGCC	1620
TTTATTACAA AACTTTATCC AGGTTCTGGC CTACAATCAC AGAGCAAATC TTTTTTATGA	1680
TGTGCTTGTA GATTGCTTGA ACCGACTTGA AAAAGAAACA AATCGATTTG AAGTGACGAT	1740
TACGTCTGCT CATCCTCTAA CTGATGAACA GAAGACTCGT TTGCTCCCTT TGATTGAGAA	1800
AAAAATGTCT CTGAAAGTAA GGAGTGTAAG AGAACAATC GATGAAAGTC TCATTGGTGG	1860
TTTTGTCAAT TTGCCAATC ACAAGACAAT TGATGTGAGT ATTAAACAAC AACTTAAAGT	1920
TGTTAAAGAA AATTGAAAT AGAAAGTGGT GTTCTTTTGG CAATTAACGC ACAAGAAATC	1980
AGCGCTTTAA TTAAGCAACA AATTGAAAAT TTCAAACCCA ATTTTGATGT GACTGAAACA	2040
GGTGTGTAA CCTATATCGG GGACGGTATC GCCCGTGCTC ACGGCCTTGA AAATGTCATG	2100
AGTGGAGAGT TGTGAATTT TGAAAACGGC TCTTATGGTA TGGCTCAAAA CTTGGAGTCA	2160
ACAGACGTTG GTATTATCAT CCTAGGTGAC TTTACAGATA TCCGTGAAGG CGATACAATC	2220
CGCCGTACAG GGAAAATCAT GGAAGTCCCT GTAGGTGAAA GTCTGATTGG TCGTGTGTG	2280
GATCCGCTTG GTCGTCCAGT TGACGGTCTT GGAGAAATCC AACTGATAA AACTCGTCCA	2340
GTAGAAGCAC CAGCTCCTGG TGTTATGCAA CGTAAGTCTG TTTCAGAACC ATTGCAAACT	2400
GGTTTGAAAG CTATTGACGC CCTTGTACCG ATTGGTCGTG GTCAACGTGA GTTGATTATC	2460
GGTGACCGTC AGACAGGGAA AACAACCATT GCGATTGATA CAATCTTGAA CCAAAAAGAT	2520
CAAGATATGA TCTGTATCTA CGTCGCGATT GGACAAAAAG AATCAACAGT TCGTACGCAA	2580
GTAGAAACAC TTCGTCAGTA CGGTGCCTTG GACTACACAA TCGTTGTGAC AGCCTCTGCT	2640
TCACAACCAT CTCCATTGCT CTTCTAGCT CTTATGCTG GGGTTGCTAT GGCGGAAGAA	2700

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TTTATGTATC AAGGTAAGCA TGTGTTTGATT GTATACGATG ATCTATCAAA ACAAGCGGTA	2760
GCTTATCGTG AACTGTGCGT CTTGCTTCGT CGTCCTCCAG GTCGTGAAGC CTTCCCAGGG	2820
GATGTTTTCT ATCTCCACAG CCGTTTGCTT GAGCGCTCAG CTAAAGTTTC TGATGAACTT	2880
GGTGGTGGAT CAATTACAGC CCTACCATT TATCGAGACAC AAGCAGGAGA TATCTCAGCC	2940
TATATCGCAA CCAACGTGAT TTCTATCACT GATGGACAAA TCTTCCTTGG CGATGGCCTC	3000
TTCAATGCAG GTATTCGTCC AGCCATCGAT GCGGGTTCAT CTGTATCTCG TGTAGGTGGT	3060
TCTGCACAAA TCAAAGCCAT GAAGAAGGTT GCTGGTACAC TTCGTATCGA CCTTGCTTCA	3120
TACCGTGAGT TGGAAGCCTT TACTAAGTTT GGTTCGACT TGGACGCAGC AACACAGGCT	3180
AAGTTGAACC GTGGACGTCG TACCGTTGAG GTCTTGAAAC AACCTGTTCA CAAACCATTA	3240
CCTGTTGAGA AACAAGTAAC CATTCTTTAT GCTTTGACAC ATGGTTTCTT GGATACTGTT	3300
CCAGTAGATG ATATTGTTCC TTTCGAGGAA GAGTTCATG CCTTCTTTGA TGCTCAACAT	3360
CCAGAGATT TGGAAACCAT TCGTGATACA AAAGACTTGC CAGAAGAAGC AGTCTTGAT	3420
GCTGCGATTA CAGAGTTTCT CAATCAATCT AGCTTCCAAT AAGAATAGAG GTGTCAGATG	3480
GCAGTATCTC TAAATGATAT TAAAACAAAA ATCGCCTCAA CAAAAATAC GAGTCAAATC	3540
ACTAATGCCA TGCAAATGGT ATCGGCTGCT AAGCTAGGTC GTTCTGAAGA AGCTGCTCGC	3600
AACTTCCAAG TTTACGCTCA GAAAGTGCCT AAACTTTGA CAGATATCCT TCATGGTAAT	3660
GGAGCTGGTG CTTCAACTAA TCCGATGTTG ATTAGCCGTT CTGTGAAGAA GACAGGCTAT	3720
ATCGTTATCA CTTCAGACCG CGGTTTGCTT GGAGGTTATA ATTCTCTAT TTTGAAAGCT	3780
GTTATGGAGT TGAAAGAAGA ATACCACCCA GACGGTAAAG GTTTTGAAAT GATCTGTATC	3840
GGTGGGATGG GAGCTGATTT CTTTAAGGCT CGCGGTATTC AACCACCTTA TGAATTACGT	3900
GGCTTGTCAG ACCAACCTAG CTTTGATCAA GTTCGTAAGA TTATTTCAA AACTGTTGAA	3960
ATGTACCAAA ATGAACTCTT TGATGAGCTT TATGTTTGCT ACAACCACCA TGTCAATACG	4020
CTAACCAGTC AAATGCGTGT GGAACAAATG CTTCCGATTG TTGACTTGGA TCCAAATGAA	4080
GCGGATGAAG AGTACAGCTT GACTTTTGAA TTGGAAACCA GCCGAGAAGA AATTCTGGAG	4140
CAGTTGTTGC CTCAGTTTGC AGAAAGTATG ATTTACGGTG CCATTATCGA TGCCAAGACA	4200
GCTGAGAATG CTGCGGGCAT GACAGCCATG CAAACAGCGA CAGATAATGC TAAGAAAGTC	4260
ATCAATGATT TGACAATTCA GTATAACCGT GCCAGACAGG CGGCGATTAC ACAAGAAATT	4320
ACAGAAATCG TAGCAGGTGC TAGTGCCTTA GAATAGGCTC TAGTCCAGCT CGTATGAAAA	4380
TGAACTTAGG ACCTAGTTGA GCTAGGAACC GACAGTATCT TATATAGAAT AGGAGAAGGA	4440

1040

GATGAGTTCA	GGTAAAATTG	CTCAGGTTAT	CGGTCCCGTT	GTAGACGTTT	TGTTTGCAGC	4500
AGGGGAAAAA	CTTCCTGAGA	TTAACAATGC	ACTTGTCGTC	TACAAAAATG	ACGAAAGAAA	4560
AACAAAAATC	GTCCTTGAAG	TAGCCTTGGA	GTTAGGAGAT	GGTATGGTTC	GTAATATCGC	4620
CATGGAATCA	ACAGATGGGT	TGACTCGTGG	AATGGAAGTA	TTGGACACAG	GTCGTCCAAT	4680
CTCTGTACCA	GTAGGTAAAG	AACTTTGGG	ACGTGTCTTC	AACGTTTTGG	GAGATACCAT	4740
TGACTTGGA	GCTCCTTTTA	CAGAAGACGC	AGAGCGTCAG	CCAATTCATA	AAAAAGCTCC	4800
AACTTTTGAT	GAGTTGTCTA	CCTCTTCTGA	AATCCTTGAA	ACAGGGATCA	AGGTTATTGA	4860
CCTTCTTGCC	CCTTACCTTA	AAGGTGGTAA	AGTTGGACTT	TTGGGTGGTG	CCGGAGTTGG	4920
TAAACTGTC	TTAATCCAAG	AATTGATTCA	CAACATTGCC	CAAGAGCACG	GTGGTATTTC	4980
AGTATTTGCT	GGTGTGGGG	AACGTACTCG	TGAGGGGAAT	GACCTTTACT	GGGAAATGAA	5040
AGAATCAGGC	GTTATCGAGA	AAACAGCCAT	GGTCTTTGGT	CAGATGAATG	AGCCACCAGG	5100
AGCACGTATG	CGTGTGCCC	TTACTGGTTT	GACAATCGCT	GAATACTTCC	GTGATGTGGA	5160
AGGCCAAGAC	GTGCTTCTCT	TTATCGATAA	TATCTTCCGT	TTCACTCAGG	CTGGTTCAGA	5220
AGTATCTGCC	CTTTTGGGTC	GTATGCCATC	AGCCGTTGGT	TACCAACCAA	CACTTGCTAC	5280
GGAAATGGGT	CAATTGCAAG	AACGTATCAC	ATCAACCAAG	AAGGGTTCTG	TAACCTCTAT	5340
CCAGGCTATC	TATGTGCCAG	CGGATGACTA	TACTGACCCA	GCGCCAGCAA	CAGCCTTCGC	5400
TCACTTGGAT	TCAACAACAA	ACTTGGAACG	TAAGTTGGTA	CAATTGGGTA	TCTACCCAGC	5460
CGTTGACCCA	CTTGCTTCAA	GCTCACGTGC	CTTGGCACCT	GAAATCGTTG	GAGAAGAGCA	5520
CTATGCAGTT	GCTGCTGAAG	TAAAACGTGT	CCTTCAACGT	TACCATGAAT	TGCAAGATAT	5580
CATTGCTATC	CTTGGTATGG	ATGAGCTTTC	TGATGAAGAA	AAGACCTTGG	TTGCTCGCGC	5640
CCGTCTGATC	CAGTTCTTCT	TGTCACAAAA	CTTCAACGTT	GCGGAACAAT	TTACTGGTCA	5700
GCCAGGTTCT	TATGTTCCAG	TTGCTGAAAC	TGTACGTGGC	TTTAAGGAAA	TCCTTGATGG	5760
TAAATACGAC	CACTTGCCAG	AAGATGCCTT	CCGTGGTGTA	GGTCTATCG	AAGATGTGAT	5820
TGCAAAAGCT	GAAAAAATGG	GATTTTAAGA	GGTGATCTAT	GGCTCAGTTA	ACTGTCCAGA	5880
TCGTGACACC	AGATGGTCTC	GTCTATGATC	ACCATGCCAG	CTATGTATCG	GTTGGAATTC	5940
TGGATGGTGA	GATGGGGATC	TTGCCACGAC	ATGAAAATAT	GATTGCGGTT	TTAGCAGTTG	6000
ATGAAGTAAA	GGTAAAACGT	ATCGATGATA	AAGATCACGT	GAACTGGATT	GCAGTAAACG	6060
GTGGCGTTAT	TGAAATTGCC	AATGATATGA	TCACAATCGT	CGCTGACTCT	GCAGAACGTG	6120
CTCGTGATAT	CGATATCAGT	CGTGCAGAAC	GTGCCAAACT	TCGTGCAGAA	CGTGCAATTG	6180
AAGAAGCACA	AGACAAACAT	TTGATTGACC	AAGAACGTCT	TGCTAAGATT	GCTTTGCAAC	6240

1041

GTGCTATTAA CCGTATTAAT GTCGGAAATA GACTATAAGA AAAAATGAAC TTGAAAATAC	6300
CAAGTTCATT TTTTATGGTG TTTTAAGGAG CAAAACGGAT GCAGACTGCT TCGGGAACAT	6360
GGAAGTCGTT GGAGAGTTCT GCTAGACGAC CATTGTCACA ATTACGTTTA AAGACAGTTG	6420
CATTGTCAGA GTCTTGATGG ACAACAATGA GAAATTTTTG GTCGGGTGTC AAATCAAAAT	6480
CACGTGGAGT CTGACCATGC GTTGGAACGA TTTCTAATAA CTCTAAGCTA CCGTCCGCAA	6540
GGATGGTATA TACTGCGATA GAATCATGGC CACGGTTAGA AGCGTAGAGG TATTTACCGT	6600
CTTTAGAGAG ATGAATAGCA GCGGTTCCAT TAAAGCCTTC GTAAGCTTCC GGTAAAGTTG	6660
AAATGACCTG CATACGTTCA AATTGCGCAA CGCCATCGTA GATTAAACT TCGATAGTAC	6720
TATTGAGTTC ACAAATGAGA TAAGCGATTT TATAGTGGTT ATGGAAAATG ATATGGCGTG	6780
AGCCTGCTCC TGGCTTGCTG TGATAGGTAT AGAGCTTAGA TAATTTTCCT TCTTGATCGA	6840
GGTCATAGGT GATGACTTGG TCAGTTCCCA AGTCGCAGGT CACTAGATAG TGGTCAGGTG	6900
TTAAATCTGT ATAGTGAACA TGGGGGGAAG CTTGATTTTC ATGTGGACCT TGGCCACTGT	6960
GTTGATCCAT ATCACTAAGT AGAAGACTAC CATCTTCCTG GCGTTTATAA ACAAGGACTT	7020
GTCCCTTG TG ATAGTTAGCT GCGTAAACCA AATCAGCTT TTCATCGACA GCAACATAAC	7080
AGTGGGAGC TCCTTCTTCA ACAACATGAT TTAACACAGT CCCGTCAGTT TGATAGGCTG	7140
CAATCCCCC CTTATCGTCT TGGCTACCAA CAGTGATAA ATGTTGGTGC TGGTCAAAGG	7200
CAAGGTAGGT TGGACTTGGC TCAGCTGCAA AAAGTTCTAG ATTTGAAAGC TGACCAGTTT	7260
CTGTATCAAA GTCTGCCTTG TAAATCCCTT GAGAAGTACG ACGTGTATAA GTTCCAAAAT	7320
AAACAGTTTC TTTCATTACT ATACCTCTGT GTAAAGATAA GACTATTATA TCACAAAAC	7380
AAGTAAATTA AAGATATCCA ATTAGATGTA AGCACTTTAA AAAAGAGTTA TTTTGTTC	7440
AAAATGGTAT AATGAGAGAA CAATAGAAAG GAAGTATTTA TGGAGCAAAA AGAGAAACAT	7500
TTTAGCCTAT CTTGGTTTTT CAAGTGGTTT TTAGATAACA AGGCAATTAC GGTATTTT	7560
GTAACCTTAT TATTGGGACT GAATCTTTT ATTTTAAGTA AGATTAGTTT TCTATTTT	7620
CCTGTTTTAG ACTTTTTAGC AGTTGTGATG TTGCCAGTCA TTTTGTCTGG TTTGTTAT	7680
TATTTGTTGA ATCCTATTGT TGATTGGATG GAGAAGCATA AGGTTAATCG TGTATAGCT	7740
ATCACTAFTG TCTTTGTTAT CATCGCTCTC TTTATCATTT GGGGCTTGGC AGTCGCCATT	7800
CCAAATCTGC AACGTCAGGT TTTGACCTTT GCAAGAAACG TTCCTGTTTA CTTAGAAGAT	7860
ATAGATAGGA TTGTTAATGG ATTGGTAGCC CAGCACCTGC CAGATGATTT CAGACCTCAA	7920
TTAGAGCAAG TTTTGACCAA TTTTCTAGC CAGGCTACAG TTTTGGCAAG TAAGGTTTCA	7980

1042

TCTCAGGCAG TCAACTGGGT GAGTGCCTTT ATTAGCGGGG CTTCTCAAGT GATTGTTGCC	8040
TTGATTATCG TTCCTTTCAT GCTCTTTTAT CTCTTGCGTG ATGGGAAAGG CTTGCGTAAC	8100
TATTTGACCC AATTCATTCC AAGAAAATTG AAGGAACCTG TTGGACAAGT TTTATCAGAT	8160
GTGAATCAAC AGTTGTCCAA CTATGTTTGA GGGCAAGTGA CAGTGGCTAT TATTGTAGCA	8220
GTAATGTTTA TCATCTTCTT CAAGATTATT GGTCTACGCT ATGCGGTTAC GCTGGGGGTT	8280
ACTGCTGGTA TTTTAAATCT GGTCCCTTAT CTTGGTAGCT TTCTAGCCAT GCTTCCTGCT	8340
CTAGTATTGG GTTTGATTGC TGGTCCAGTC ATGCTTTTGA AAGTAGTGAT TGTCTTTATC	8400
GTAGAACAAA CTATTGAAGG CCGTTTTGTC TCTCCATTGA TTTTGGGAAG TCAATTAAAC	8460
ATCCACCCTA TTAATGTTCT CTTTGTGTTG TTAACCTCAG GATCTATGTT TGGTATCTGG	8520
GGAGTTTAC TTGGTATTCC GGTATTATGCC TCTGCTAAGG TTGTCATTTC AGCCATTTTC	8580
GAATGGTATA AGGTAGTCAG TGGTCTATAT GAATTAGAGG GTGAGGAAGT CAAGAGTGAA	8640
CAATAGTCAA CAGATGTTAC AGGCTTTGGA GGAGCAAGAT TTAACCTAAG CTGAGCATT	8700
TTTCGCCAAA GCTTTAGAAA ATGATTCAAG TGATCTTCTG TATGAATTGG CAACTTATCT	8760
TGAAGGGATT GGTTCCTATC CTCAGGCCAA GGAAATTAC CTGAAAATTG TAGAGGATTT	8820
TCCAGAGGTT CATCTTAATC TAGCTGCAAT TGCTAGCGAG GATGGTCAAA TAGAAGAAGC	8880
CTTTACCTAT CTTGAGGAAA TCCAAGCTGA CAGTGACTGG TATGTCTCGT CTTTGGCTCT	8940
GAAGGCAGAC CTTTACCAGC TGGAAGGTTT GACAGATGTG GCACGTGAGA AATTATTGGA	9000
GGCCTTGACC TACTCAGAGG ATTCTCTCTT GATATTGGGT TTGGCAGAGT TGGATAGTGA	9060
GTTGGAAAAT TACCAAGCGG CTATTCAAGC CTATGCCAG TTAGATAATC GCTCGATTTA	9120
TGAGCAAACG GGCATTTCCA CCTATCAACG AATTGGCTTT GCCTATGCTC AGTTAGGGAA	9180
ATTTGAAACG GCTACTGAGT TTTTAGAAAA AGCCCTGGAG TTAGAATACG ATGACTTAAC	9240
AGCTTTTGAG TTGGCCAGTC TTTATTTTGA TCAAGAAGAA TATCAAAAAG CCACCCTCTA	9300
CTTTAAGCAG CTTGATACCA TTTCTCCTGA CTTTGAAGGC TATGAGTATG GGTACAGTCA	9360
GGCTTTACAT AAGGAACATC AAGTTCAAGA AGCCCTGCGT ATCGCTAAGC AAGGATTAGA	9420
GAAAAATCCC TTTGAACTC GCCTCTTGCT AGCTGCTTCA CAATTTTCTT ATGAATTGCA	9480
TGATGCTAGT GGTGCAGAAA ATTATCTCCT TACTGCAAAA GAAGACGCTG AGGATACAGA	9540
AGAAATCTTG CTTGTTTTAG CCACTATTTA TCTGGAGCAG GAGCGTTATG AGGATATTCT	9600
AGAATTGCAG AGTGAGGAGC CAGAAAATCT TTTGACCAAG TGGATGATTG CTCGTTCTTA	9660
TCAAGAAATG GACGATTGAG ATACTGCTTA TGAGTATTAT CAAGAGTTGA CAGGAGATTT	9720
GAAGGACAAT CCAGAATTTT TGGAACACTA TATCTATCTC TTGCGTGAAT TGGGACATTT	9780

1043

TGAAGAAGCA AAAGTCCATG CTCACACTTA CTTAAAACTG GTTCCAGATG ATGTGCAAAT	9840
GCAAGAACTG TTTGAGAGAT TGTAAGAATG TTTAACCCAA ATCATTGATA CCTCTCTCAA	9900
CTAGATGTAA CTTACAAAAC CCCTGACCTC ATGAGCCACT TTCTTCCTCC TCATGAGGTC	9960
AGTTTTACTT TCTGCTGTTT CAGTATCGTT TTCTCTCGCT AGATTTCCTC AAAAGGGCAG	10020
ACTCCTCCCT TGGTGCCTCA CACGATTTTT TCATCTCGAC TGTTCTTTAA TGCATCATTA	10080
ACGACGCTTT TCTTCTAGGT GGTTCATAAG GAACAGGAAG ATTCAGGTTG ACTTTTCTAA	10140
TCCTAGAATA AAGTGCTGAA AACAATTCCG AATAGGCATA GAGACTAGAC AATTTGAGGA	10200
GCTGCTTGCG TCCTGTTTGA ACACATTTTC CCACCACGTG AAGAAAAAGA TGGCGGAAGC	10260
GTTTGATTGT TAAAGTTTGG AAGTCACCTC CAGCTAGATG TTTGAGAAAA AGATAGAGAT	10320
TGTAGGCGAT ACAGCTCATC ATCATACGAA TTCGTTTTTG ATTAAGGTTG AACTATCCGT	10380
TTTATCGCCA AAAAATCGG	10399

(2) INFORMATION FOR SEQ ID NO: 161:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 9409 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 161:

GATAAGATTA AGTTAGAAAA GAAAGAACTA GGACATATCT ACCAGATTCA GGTTTTTAAT	60
AGCTATGGGC AGGAAGAAAT CTATCGTGTG ATTTTGATGG AGACCAATAT TAGTTCGGTT	120
TCAACCAATA TCAAGTATGC TGCTGTCTTG ATTAATACCA GTCAGTTGGA ACAGGCTAGT	180
CAAAGCATG AGCAATTGAT TGTGGTCGTG ATGGCTAGTT TCTGGATTTT GTCTTTACTT	240
GCCAGTCTCT ATCTAGCTAG GGTCAGTGTT AGGCCCTGC TTGAGAGTAT GCAGAAGCAA	300
CAGTCPTTTG TGGAAAATGC CAGTCATGAG TTACGAACTC CACTCGCAGT TTTGCAAAAT	360
CGCTTAGAGA CCTTTTTTCG TAAGCCAGAA GCTACCATTA TGGATGTGAG CGAAAGCATT	420
GCATCGAGTT TGGAAGAAGT CCGAAATATG CGTTTTTTAA CGACAAGCTT GCTGAACTTA	480
GCTCGGAGAG ATGATGGGAT TAAGCCGGAG CTTGCAGAAG TTCCAAGTAG CTTTTTTAAT	540
ACAACTTTCA CAACTACGA GATGATTGCT TCGGAAAATA ATCGTGTCTT CCGTTTTGAA	600
AATCGTATCC ATCGAACAAT TGTCACAGAT CAGCTTCTTC TGAAACAACG GATGACCATT	660
CTTTTCGATA ATGCCGTCAA GTATACTGAG GAGGATGGTG AAATTGATTT TCTTATCTCG	720

1044

GCGACCGATC GCAATCTTTA TTTACTTGTT TCTGATAATG GAATCGGTAT TTCGACAGAA	780
GATAAAAAGA AAATTTTTGA CCGTTTTTAT CGAGTAGACA AGGCTAGAAC CCGGCAAAAA	840
GGTGGTTTTG GTTTAGGATT ATCCCTAGCC AAGCAAATTG TAGATGCTCT AAAAGGAACT	900
GTTACTGTCA AAGATAATAA ACCCAAGGGA ACAATCTTTG AAGTGAAGAT TGCCATTTCAG	960
ACACCATCTA AAAAGAAAAA ATAAAAATAT CGCTCCAATT GGGGCGATAT TTTGGATTTA	1020
TCTTCTACGT TTTCGTTTGA TAATAGACCG TTGAACTTTT AAAACAAGTA AGCTGAATCC	1080
GATTGCTGCG GCAAAGGCAA GAGCAGTTGA TAATTTTAAT GCTAAAAAGA TAAACTAAA	1140
GATAGCAATA CAGATACAAA AAACAGCGAT ATTAATAAAA AATAGGATTT CCTTGAGATT	1200
GGCATCAGAT TGCGCTTCAG GTGTATAAGC TTGGTAATGA GGAAGCTGCT GGTTTAATTC	1260
TTCTTGATAG TCTACCTCAT AGGATTGTAA TTTTCTTACG GGCATGATTC TCTCCTTAAC	1320
AGTACATACC TATTTTATCA TTTTTCGGC AGAGAATTAT TACAGAAAGG TTACAAAAAG	1380
AATAAAGTCC CTTTTCATTT TCAAAGCATG GCTGATTTTG GAGAAATGTG GTATAATTTT	1440
TCTTATGGAA AAGATTGTCA TTACAGCAAC TGCTGAAAGT ATTGAACAAG TTGAACAAC	1500
ACTCGAAGCT GGCCTAGACC GTATCTATGT CCGTGAGAAA GATTTTGGTC TTCGTCTGCC	1560
AACGACCTTT AGTTATGACC AATTACGTGA AATCGCTAAG TTGGTTCATG ATGCTGGTAA	1620
GGAATTGATC GTTGGGTCA ATGCTCTCAT GCACCAAGAT ATGATGGACC GTATCAAGCC	1680
TTTCTTAAAC TTCTTGGAAG AAATCAAGAC AGACTATATT ACGATTGGGG ATGCAGGCGT	1740
CTTTTACGTA GTTAACCGCG ATGGTTATTC ATTTAAGACC ATCTACGATG CTTCAACCAT	1800
GGTAACTAGC AGTCGTCAGA TTAACCTCTG GGGACAAAAG GCTGGCGCAT CTGAGGCTGT	1860
TTTGGCGCGT GAAATTCAT CAGCTGAACT TTTCAAAATG CCAGAGATTT TGGAAATTC	1920
TGCTGAAGTT TTGGTTTACG GTGCTAGCGT CATCCATCAT TCTAAACGTC CACTCTTGCA	1980
AACTACTAT AACTTTACAC ATATCGATGA TGAAAAGACG CATAAACGTG ACCTCTTCTT	2040
GGCTGAGCCA AGTGATCCAG AGAGCCACTA TTCCATTTTT GAAGATAATC ATGGGACCCA	2100
TATCTTTGCC AACAATGACC TTGATTTGAT GATCAAATTA ACAGAATTGG TGGACCATGG	2160
CTTTACTCGC TGGAACTAG AAGGGCTCTA CACTCCTGGT CAGAACTTTG TTGAGATTGC	2220
AAACTCTTT ATCCAAGCGC GTAGCTTGAT TCAAGAGGGC AACTTTAGTC ATGCTCAAGC	2280
CTTCTTGCTG GATGAAGAAG TTCGTAAACT TCACCCTAAA AACCGTTTCC TTGATACAGG	2340
ATTTTATGAC TACGATCCTG ACATGGTTAG ATAAAATACA TGATTCGTTG AGAGAAGGAA	2400
GATGCAAACA TTTCTTCTCT CAATTTTTCG TATTTCTTCA CTATTTTACA AAAATCAGCA	2460
GGCTAGAATG CTCTATTCGA TGGGATTTTT AAGAAAAGTA GTGTTCTTGA GTTTGAAAAT	2520

1045

TATCCTATGT TTGCAGGTGC CAAATGGCCC TTTTTTTGGT ATAATTTTTT ATAATGAAAA	2580
CGATTGGTAA TCGCTATGTT GTGGTGGATT TAGAGGCAAC TAGCACAGGT AGTAAGGCTA	2640
AAATTATCCA AGTGGGAATT GTCGTGATTG AGGACGGAGA AATCGTCGAT CACTATACGA	2700
CGGATGTCAA TCCACATGAA CCCTTGGATG CTCATATCAA AGAACTGACA GGATTGACAG	2760
ACCAACGTCT GCGCAAGCA CCTGATTTTT CGCAAGTTGC CAGAAAAATA TTTGACTTGG	2820
TGGAGGATGG GATTTTTGTA GCCCATAATG TTCAGTTTGA TGCTAATCTC TTGGCGGAAA	2880
ATTTATTTTT TGAAGGCTAT GAGCTAAGAA ACCCTCGTGT TGATACGGTC GAATTGGCCC	2940
AGGTCTTTTT CCCTGAACTG GAAAAATATA GCTTGCCGAT TTTGTGTCCA GAATTAGGAA	3000
TTCTCTTAA ACACGCACAC ACAGCCCTTT CAGATGCCCA AGCTACAGCA GAATTACTTC	3060
TTTTTTTACG GAAAAAGATG ACCCAGCTTC CTAAAGGTCT CTTGGAACGC TTGCTGGAAA	3120
TGGCTGACGC TCTCCTATAT GAGTCCTACC TGGTTATTGA GGAACTTAT CGCAACCAAT	3180
CTATCCTGAG TTCTCCAGAC TTGGTCCAAG TTCAAGGTCT ATATTTTAAG AAAACGGAAG	3240
CTTCTCTGGA GCCACGAAAA CTATCTCAAG ACTTTTCTAA AAATATTTCT CTGTTGAACC	3300
TTGAAGTGAG GGAGGAACAA GAAAGTTTTG CTAAAGAGGT TGGCTTGCTA TTGAAAGATG	3360
AACCTGTCTC TCTGATTCAA GCGCCGACAG GGATTGGGAA AACCTATGGC TATCTCTTAC	3420
CCGCTTTATC TCAATCCAAA GAGCGACAAA TTGTTCTTAG TGTTCGACA AAGATTCTTC	3480
AAAATCAAAT CATGGAAGAA GAAGGTAAAC GCCTCAAGGA AGTGTTCAT ACAGATATTC	3540
ATAGCTTAAA GGGACCACAA AATTATCTGA AGTTGGATGC CTTTATCAT TCCTTGCAGG	3600
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AGACAGAGAC AGGAGATTTG GATGAAATCG GGCAACTCTA CCGTTACCAA CATTTTCTAG	3720
CAGACCTTCG TCATGATGGG AATTTATCAT CCCAGAGCTT ATTTGTGACG GAAGATTTTT	3780
GGAAACGTAG TCAAGAAAGG GCAGAGACTT GCAAGCTTTT AGTGACTAAT CATGCCTATC	3840
TCGTAACCAG ACTTGAAGAT AATCCTGAAT TTGTCAGTGA CCGTTTACTG ATTATTGATG	3900
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CTATTATCGA TTTAATTGAT AAGGCTTTAG TAGGAGAAGA AAACAGGGTT CAACAACGGA	4020
TACTAGAAAG TATTCGCTTT GAGTGTCTCT ACTTGATAGA ACAATTTTCAG TCTGGCAAAT	4080
CTAGGAAAAA TATCTTAGAT TCTCTGGACA ATCTCCATCA GTATTTTTC AATTGGAAG	4140
TAGAAGACTT TGATGAGCTG GTTCGCTATT TTACAGCTGA AGGTGATTAC TGGCTTGAAG	4200
TAACTGAAAC GAGTCAAAAG AAAATTCAGA TTTCTTCTAC AAAATCAGGC CGTACTCTTC	4260

1046

TGTCCTCTTT ACTTCCTGAG AGTTGCCAAG TCTTGGGAGT ATCGGCTACT CTTGAGATTA	4320
GTCAGAGGGT TTCTTTGGCA GACCTTTTAG GCTATCCTGA AGCTAAATTT GTCAAGATTG	4380
AATCTCGGG AAAACAGGAA CAAGAAGTGG TCATGGTCAA AGATTTCCCT CTGGTAACAG	4440
AAACCTCCTT AGAAGTCTAT GCCAGAGAGG TAGCTGCTTT ACTAGTGGAA ATTCAAGCTT	4500
TCCAGCAACC GATTTTGGTT CTCTTTACCG CTAAAGACAT GCTTCTAGCA GTATCGGATT	4560
TACTTACAGT TAGCCACTTG GCCCAGTATA AAAATGGGGA TGTTCATCAG CTAAAGAAAC	4620
GCTTTGAAAA AGGTGAACAA CAAATCTTGC TTGGTGCAGC AAGTTTCTGG GAGGGAGTTG	4680
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AAGAACCCTT GACGAAAAAG ATTAATCAAG AACTGAATCA AGAAGGGAAA AATGCCTTTT	4800
ATGATTATCA ATTGCCAATG GCCATTATTC GTTTAAAACA GGCTTTGGGA AGAAGTATGA	4860
GACGTGAATA CCAACGTTCC TTAACCTTA TTTTGGATAG GAGAATCGTC GGAAAACGAT	4920
ACGGCAAACA AATAGTAGCA TCTCTAGCAG AAGAAGCGAC TGTAAAACC ATCTCTCGAT	4980
CCGAAGTTGA CGAGGCTATT GATAGATTTT TTAATGAGCT TTGATAAATA GTATTGTATG	5040
AAAGTATAAG GTTAGTATAT ATGAAACGTT CTCTCGACTC AAGAGTCGAT TACAGTTTGC	5100
TCTTGCCAGT ATTTTTTCTA CTGGTCATCG GTGTGGTGGC TATCTATATA GCCGTTAGTC	5160
ATGATTATCC CAATAATATT CTGCCCATT TAGGGCAGCA GGTCCGCTGG ATTGCCTTGG	5220
GGCTTGTGAT TGGTTTTGTG GTCATGCTCT TTAATACAGA ATTTCTTTGG AAGGTGACCC	5280
CCTTCTATA TATTTTAGGC TTGGGACTTA TGATCTTGCC GATTGTATTT TATAATCCAA	5340
GCTTAGTTGC ATCAACGGGT GCCAAAACT GGGTATCAAT AAATGGAATT ACCCTATTCC	5400
AACCGTCAGA ATTTATGAAG ATATCCTATA TCCTCATGTT GGCTCGTGTC ATTGTCCAAT	5460
TTACAAAGAA ACATAAGGAA TGGAGACGCA CGGTTCCGCT GGACTTTTTG TTAATTTCT	5520
GGATGATTCT CTTTACCATT CCAGTCCTAG TTCTTTTAGC ACTTCAAAGT GACTTGGGGA	5580
CGGCTTGGT TTTGTAGCC ATTTCTCAG GAATCGTTTT ATTATCAGGG GTTTCTTGA	5640
AAATTATTAT CCCAGTATTT GTGACTGCTG TAACAGGAGT TGCTGGTTTC TTAGCTATCT	5700
TTATTAGCAA GGACGGACGA GCTTTTCTTC ACCAGATTGG AATGCCGACC TACCAAATTA	5760
ATCGGATTTT GGCTTGGCTC AATCCCTTTG AGTTTGCCCA AACAACGACT TACCAGCAGG	5820
CTCAAGGGCA GATTGCCATT GGGAGTGGTG GCTTATTTGG TCAGGGATTT AATGCTTCGA	5880
ATCTGCTTAT CCCAGTTTGA GAGTCAGATA TGATTTTAC GGTATTGCA GAAGATTTG	5940
GCTTTATTGG CTCTGTCCTG GTTATTGCCC TCTATCTCAT GTTGATTTAC CGTATGTTGA	6000
AGATTACTCT TAAATCAAAT AACCAGTTCT ACATTATAT TTCCACAGGT TTGATTATGA	6060

1047

TGTTGCTCTT CCACATCTTT GAGAATATCG GTGCTGTGAC TGGACTACTT CCTTTGACGG	6120
GGATTCCCTT GCCTTTCATT TCGCAAGGGG GATCAGCTAT TATCAGTAAT CTGATTGGTG	6180
TTGGTTTGCT TTTATCGATG AGTTACCAGA CTAATCTAGC TGAAGAAAAG AGCGGAAAAG	6240
TCCCATTCAA ACGGAAAAG GTTGTATTAA AACAAATTAA ATAAGGAGAA AATCATGGTA	6300
AAAGTAGCAG TTATATTAGC TCAGGGCTTT GAAGAAATTG AAGCCTTGAC AGTTGTAGAT	6360
GTCTTGCGTC GAGCCAATAT CACATGTGAT ATGGTTGGTT TTGAAGAGCA AGTAACGGGT	6420
TCGCATGCAA TCCAAGTAAG AGCAGATCAT GTCTTTGATG GAGATTTATC AGACTATGAT	6480
ATGATTGTTT TTCCTGGAGG TATGCCTGGT TCTGCACATT TACGTGATAA TCAGACCTTG	6540
ATTCAAGAAT TGCAAGCTT CGAGCAAGAA GGAAGAAAC TAGCAGCCAT TTGTGCGGCA	6600
CCAATTGCCC TCAATCAAGC AGAGATATTG AAAAATAAGC GATACACTTG TTATGACGGC	6660
GTTCAAGAGC AAATCCTTGA TGGTCACTAC GTCAAGGAAA CAGTAGTGGT AGATGGTCAG	6720
TTGACAACCA GTCGGGGTCC TTCAACAGCC CTTGCCTTTG CCTACGAGTT GGTGGAGCAA	6780
CTAGGAGGGG ACGCAGAGAG TTTACGAACA GGAATGCTCT ATCGAGATGT CTTTGGTAAA	6840
AATCAGTAAA ACGGGAGTTA TTCTCTCGTT TTTTATGTGG AAAACTCAGG GAAATCATCG	6900
CTTTTTTCAT AAAAAATGC TATAATGAAG GGTATGAAAT ATCAGGATTA CATCTGGGAT	6960
TTAGGTGGAA CTTTACTGGA TAATTATGAA ACTTCAACAG CTGCATTTGT TGAAACATTG	7020
GCACTGTATG GTATCACACA AGACCATGAC AGTGTCTATC AAGCTTTAAA GGTCTTCTACT	7080
CCTTTTGCGA TTGAGACATT CGCTCCCAAT TTAGAGAATT TTTTAGAAAA GTACAAGGAA	7140
AATGAAGCCA GAGAGCTTGA ACACCCGATT TTATTTGAAG GAGTTTCTGA CCTATTGGAA	7200
GACATTTCAA ATCAAGGTGG CCGTCATTTT TTGGTCTCTC ATCGAAATGA TCAGGTTTTG	7260
GAAATTTTAG AAAAAACCTC TATAGCAGCT TATTTTACAG AAGTGCTGAC TTCTAGCTCA	7320
GGCTTTAAGA GAAAGCCAAA TCCCGAATCC ATGCTTTATT TAAGAGAAAA GTATCAGATT	7380
AGCTCTGGTC TTGTCATTGG TGATCGGCCG ATTGATATCG AAGCAGGTCA AGCTGCAGGA	7440
CTTGATACCC ACTTGTTTAC CAGTATCGTG AATTTAAGAC AAGTATTAGA CATATAAGAA	7500
AAAGGAATAA GATGACAGAA GAAATCAAAA ATCTGCAGGC ACAGGATTAT GATGCCAGTC	7560
AAATTCAAGT TTTAGAGGGC TTAGAGGCTG TTCGTATGCG TCCAGGGATG TACATTGGAT	7620
CAACCTCAAA AGAAGGTCTT CACCATCTAG TCTGGGAAAT TGTTGATAAC TCAATTGACG	7680
AGGCCTTGGC AGGATTTGCC AGCCATATTC AAGTTTTTAT TGAGCCAGAT GATTCGATTA	7740
CTGTTGTGGA TGATGGGCGT GGTATCCCAG TCGATATTCA GGAAAAACA GGCCGTCCTG	7800

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CTGTTGAGAC CGTCTTTACA GTCCTTCACG CTGGAGGAAA GTTCGGCGGT GGTGGATACA	7860
AGGTTTCAGG TGGTCTTCAC GGGGTGGGGT CGTCAGTAGT TAATGCCCTT TCCACTCAAT	7920
TAGACGTTCA TGTTACAAA AATGGTAAGA TTCATTACCA AGAATACCGT CGTGGTCATG	7980
TTGTGCGAGA TCTTGAAATA GTTGGAGATA CGGATAAAAC AGGAACAAC GTTCACTTCA	8040
CACCGGACCC AAAAATCTTC ACTGAAACAA CAATCTTTGA TTTTGATAAA TTAAATAAAC	8100
GGATTCAAGA GTTGGCCTTT CTAAATCGCG GTCTTCAAAT TTCAATTACA GATAAGCGCC	8160
AAGGTTTGGA ACAAACCAAG CATTATCATT ATGAAGGTGG GATTGCTAGT TACGTTGAAT	8220
ATATCAACGA GAACAAGGAT GTAATCTTTG ATACACCAAT CTATACAGAC GGTGAGATGG	8280
ATGATATCAC AGTTGAGGTA GCCATGCAGT ACACAACCTGG TTACCATGAA AATGTCATGA	8340
GTTTCGCCAA TAATATTCAT ACCCATGAAG GTGGAACACA TGAACAAGGT TTCCGTACAG	8400
CCTTGACACG TGTTATCAAC GATTATGCTC GTAAAAATAA GTTACTGAAA GACAATGAAG	8460
ATAATTTAAC AGGGGAAGAT GTTCGCGAAG GCTTAACTGC AGTTATCTCA GTTAAACACC	8520
CAAATCCACA GTTTGAAGGA CAAACCAAGA CCAAATTGGG AAATAGCGAA GTGGTCAAGA	8580
TTACCAATCG CCTCTTCAGT GAAGCTTTCT CCGATTTCTT CATGGAAAAAT CCACAGATTG	8640
CCAAACGTAT CGTAGAAAAA GGAATTTTGG CTGCCAAGCC TCGTGTGGCT GCCAAGCGTG	8700
CGCGTGAAGT CACACGTAAA AAATCTGGTT TGGAAATTC CAACCTTCCA GGGAAACTAG	8760
CAGACTGTTT TTCTAATAAC CCTGCTGAAA CAGAACTCTT CATCGTCGAA GGAGACTCAG	8820
CTGGTGGATC AGCCAAATCT GGTGCTAACC GTGAGTTTCA GGCTATCCTT CCAATTCGCG	8880
GTAAGATTTT GAACGTTGAA AAAGCAAGTA TGGATAAGAT TCTAGCCAAC GAAGAAATTC	8940
GTAGTCTTTT CACAGCCATG GGAACAGGAT TTGGCGCAGA ATTTGATGTT TCGAAAGCCC	9000
GTTACCAAAA ACTCGTTTTG ATGACCGATG CCGATGTCGA TGGAGCCCAC ATTCTGATCCC	9060
TTCTTTTAAC CTTGATTTAT CGTTATATGA AACCAATCCT AGAAGCTGGT TATGTTTATA	9120
TTGCCCAACC ACCAATCTAT GGTGTCAAGG TTGGAAGCGA GATTAAAGAA TATATCCAGC	9180
CGGGTGCAGA TCAAGAAATC AAATCCAAG AAGCTTTAGC CCGTTATAGT GAAGGTCGTA	9240
CCAAACCGAC TATTCAGCGT TATAAGGGGC TAGGTGAAAT GGACGATCAT CAGCTGTGGG	9300
AAACAACCAT GGATCCCGAA CATCGCTTGA TGGCTAGAGT TTCTGTAGAT GATGTGCAGA	9360
AGCAGATAAA ATCTTTGATA TGTGATGGG GATCGAGTTG TCCTCGTCG	9409

(2) INFORMATION FOR SEQ ID NO: 162:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 6415 base pairs
 - (B) TYPE: nucleic acid

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(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 162:

CCTGGGAAAG TCTTGAAAAT TATGATAGAA TGGTGAAGG AAAAATTCAG GAGAGTAGTA	60
GTGACTCAAA ATGTTGAAAG TCTTCTCGTA TCCATTGTAA TCAGTGCATA CAATGAAGAA	120
AAATATCTGC CTGGTCTAAT TGAAGACTTA AAAAATCAAA CCTATCCTAA AGAGGATATT	180
GAAATTCTAT TTATAAATGC TATGTCCACA GATGGGACCA CAGCTATCAT TCAGCAATTT	240
ATAAAGGAAG ATACAGAGTT TAACTCAATT AGATTGTATA ACAATCCTAA GAAAAATCAA	300
GCTAGTGGTT TTAACCTGGG AGTTAAACAT TCTGTAGGGG ACCTTATTTT AAAAATTGAT	360
GCTCATTCAA AAGTTACTGA GACTTTTGTA ATGAACAATG TGGCTATTAT TCAACAAGGT	420
GAATTTGTCT GTGGGGGGCC TAGACCGACG ATTGTGGAAG GAAAAGGAAA ATGGGCAGAG	480
ACCTTGCAATC TTGTTGAGGA AAATATGTTT GGCAGTAGCA TTGCCAATTA TCGAAATAGT	540
TCTGAGGATA GATATGTTTC TTCTATTTTT CATGGAATGT ATAAACGAGA GGTTTTCCAG	600
AAGGTTGGTT TAGTAAATGA GCAACTTGGC CGAACTGAAG ATAATGATAT TCATTATAGA	660
ATTCGAGAAT ATGGTTATAA AATCCGCTAT AGCCCAAGTA TTCTATCTTA TCAGTATATT	720
CGACCAACAT TCAAGAAAAT GCTGCATCAA AAGTATTCAA ATGGTTTGTG GATTGGCTTG	780
ACAAGTCATG TTCAGTTTAA GTGTTTATCA TTATTTCACT ATGTTCCCTG TTTATTTGTT	840
TTGAGTCTTG TGTTTAGTCT AGCATTGTTA CCGATCACAT TCGTATTCAT AACTTTACTA	900
TTAGGTGCCT ATTTTCTACT TTTGTCATTA CTCACTTTCG TGACTTTATT AAAACATAAA	960
AATGGATTTC TAATTGTGAT GCCCTTTATT TTATTTTCCA TTCACTTTCG TTATGGCCTT	1020
GGGACGATTG TAGGTTTAAT TAGAGGATTT AAATGGAAGA AGGAGTACAA GAGAACAATA	1080
ATTTATTTGG ATAAATAAAG CCAAATAAAT CAAATATGC TATAATAACA ATATAGTAAA	1140
ACTCTTTTAA GGAGGAGTAG ATTTCTATGA ATAAAAAAT AACAGATTAT GTGATTGATC	1200
TGGTGGAAAT TTTAAATAAA CAACAAAAGC AGGTTTCTG GGAATATTT GATATTTTCA	1260
GTATGGTGGT TTCCATCATT GTATCTTATA TTTTATTTTA TGGGCTGATT AATCCAGCAC	1320
CTGTTGACTA CATTATCTAT ACGAGTTTGG CCTTCCTGTT CTATCAATTG ATGATTGGTT	1380
TTTGGGGGTT GAACGCGAGC ATTAGTCGTT ACAGCAAGAT TACGGATTTT ATGAAAATCT	1440
TTTTTGGTGT GACTGCTAGC AGTGTCTTGT CATATAGTAT CTGTTATGCC TTCTTGCCAC	1500
TCTTCTCCAT CCGTTTCATC ATTCTCTTAA TCTTGTGAG TACCTTCTTG ATTTTATTGC	1560

1050
CACGGATTAC TTGGCAGTTA ATCTACTCCA GACGCAAAAA AGGTAGTGGT GATGGAGAAC 1620
ACCGTCGGAC CTTCTTGATT GGTGCCGGTG ATGGTGGGGC TCTTTTATG GATAGTTACC 1680
AACATCCAAC CAGTGAATTA GAACTGGTCG GTATTTTGA TAAGGATTCT AAGAAAAAGG 1740
GTCAAAAAC TGGTGGTATT CCTGTTTGG GCTCTTATGA CAATCTGCCT GAATTAGCCA 1800
AACGCCATCA AATCGAGCGT GTCATCGTTG CGATTCCGTC GCTGGATCCG TCAGAATATG 1860
AGCGTATCTT GCAGATGTGT AATAAGCTGG GTGTCAAATG TTACAAGATG CCTAAGGTTG 1920
AAACTGTTGT TCAGGGCCTT CACCAAGCAG GTACTGGCTT CCAAAAAATT GATATTACGG 1980
ACCTTTTGGG TCGTCAGGAA ATCCGTCTTG ACGAATCGCG TCTGGGTGCA GAACTGACAG 2040
GTAAGACCAT CTTAGTCACA GGAGCTGGAG GTTCAATCGG TTCTGAAATC TGTCGTCAAG 2100
TTAGTCGCTT CAATCCTGAA CGCATTGTCT TGCTCGGTCA TGGGGAAAAC TCAATCTACC 2160
TTGTTTATCA TGAATTGATT CGTAAGTTCC AAGGGATTGA TTATGTACCT GTGATTGCGG 2220
ACATTCAAGA CTATGATCGT TTGTTGCAAG TCTTTGAGCA GTACAAACCT GCTATTGTTT 2280
ATCATGCGGC AGCCCAACAAG CATGTTCTTA TGATGGAGCG CAATCCAAAA GAAGCCTTCA 2340
AAAACAATAT CCGTGGAAC TACAATGTTG CTAAGGCTGT TGATGAAGCT AAAGTGCTA 2400
AGATGGTTAT GATTTGACA GATAAGGCAG TCAATCCACC AAATGTTATG GGAGCAACCA 2460
AGCGCGTGGC GGAGTTGATT GTCACTGGCT TTAACCAACG TAGCCAATCA ACCTACTGTG 2520
CAGTTCGTTT TGGGAATGTT CTTGGTAGCC GTGGTAGTGT CATTCCAGTC TTTGAACGTC 2580
AGATTGCTGA AGGTGGGCCT GTAACGGTGA CAGACTTCCG TATGACCCGT TACTTTATGA 2640
CCATTCCAGA AGCTAGCCGT CTGGTTATCC ATGCTGGTGC TTATGCCAAA GATGGGGAAG 2700
TCTTTATCCT TGATATGGGC AAACCAGTCA AGATTTATGA CTTGGCCAAG AAGATGGTGC 2760
TTCTAAGTGG CCACACTGAA AGTGAAATTC CAATCGTTGA AGTTGGAATC CGCCCAGGTG 2820
AAAAACTCTA CGAAGAACTC TTGGTATCAA CCGAACTCGT TGATAATCAA GTTATGGATA 2880
AGATTTTCGT TGGTAAGGTT AATGTCATGC CTTTAGAATC CATCAATCAA AAGATTGGAG 2940
AGTTCCGCAC TCTCAGTGA GATGAGTTGA AGCAAGCTAT TATCGCCTTT GCTAATCAAA 3000
CAACCCACAT TGAATAAAAA AGAAAAACGC ATAGTATCAA GTTACACAAC CTTGGTAATA 3060
TGCCTTTTAT TATGTAGAGA CTTATACTCT TCGAAAATCT CTTCAAACCA CGTCAACGTC 3120
GCCTTGCCGT ATATGGTTAC TGACTTCGTC AGTTCTATCC ACAACCTCAA AACAGTGTTT 3180
TGAGyTGACT TCGTCAGTTC TATCCACAAC CTCAAAACAG TGTTTTGAGc TGACTTCGTC 3240
AGTTCTATCC ACAACCTCAA AACAGTGTTT TGAGCTGAcT TCGTCAGTTC CATCCACAAC 3300
CTTAAAACAG TGTTTTGAGy TGACnTTCGT CAGTTCCATC TACAACCTTA AAACAGTGTT 3360

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TTGAGCTGCC CGCAGCTAGT TTCCTAGTTT GCTCTTTGAT TTTCATTGAG TATTACTTCA	3420
TTTCTTCTG AAATGGAATT GTTACCCAGT CTATGCTATT GAAAATACGC CAAAACCTCT	3480
AAGGGTTTGT GAGCGATATA ATCAGGTTGA TAGTTTAGTA GATCTGCTTG CTCTCCAAAT	3540
CCCCAAGTGA TGGCCAATTT CTGAATACCT GTTCTCTGAG CTCCCAGCAT ATCAAACCTG	3600
GTATCTCCGA TGATGATGGC TTGTTCTGGT GCTAGTTGAT GTGTCTGCAA GGCTTGGTGA	3660
ATGACATCTG CCTTATGGGG TGCTTCAGGG CTAGAACCAT AAATGCCATC AAAGAAATGA	3720
TGGATTCCA AGTTTTTTGC CATGTCTTGA GCAGTAGATG TATCCTTTGT CGTGGTGATG	3780
TAGAGTGGAT AACTGCTCGA TAACTCCTCA AGCAAGCTA TAATCTGAGG AAAGAGTTGA	3840
GCTTCATAGA TGCCTTTTGC CTTATAGTAA GAACGATATA TCTGCACGGC TTCAGAAATT	3900
TGGTCTTTGG ACAGGCAGGT CGCAAACTA CTTTCGAGAG GTGGTCCCAT AAAACCACGA	3960
ATAGTTTTGG CATCAGGGCT AGGCACCCC AGCTCTTTAA AGGTATAGGT AAAGGCATTG	4020
TGAATCCGA TAGAACTATC AACGAGGGTT CCATCCAAAT CGAAAAAAT CGCTGTGATA	4080
GAGGTCATGG TTTCTCCTAT TTGATAAGCT TATTCTCCGA AAATTTCTTT TTGGAGGCGA	4140
CGACCAGTAG GGGTGGTAGC GAGTCCACCT TCAGCTGTTT CACGAAAGGC AGTTGGCATG	4200
CTTGCTCCTA CTTGGTACAT GGCATCGATC ACTTCATCCA CAGGGATTTT AGATTGATA	4260
CCTGCCAAGG CCATGTCTGC TCGATGAAA GCAAAGCTAG CTCCCATGGC ATTACGTTTG	4320
ACACAGGGAA CTTGACCAA ACCTGCAACA GGGTCACAGA TGAGGCCTAG CATATTTTAA	4380
ATGACAAAGG CAATAGCTTG ACTGGCCTGA TAAGGTGTTT CACCTGCAGC CAGAGTCAAG	4440
GCGGCAGCAC TCATAGCAGA GGCTGAACCA ACTTCAGCTT GACACCCACC CTCAGCACCT	4500
GAGATGGAGG CATGTGTTGC GATGACTAGT CCAAAGGCAC CAGCAGCAA GAGGAAATCC	4560
AATTGTTGCT CGTGGCTGAG GTCTAATTTT TCAATAGCAG CAGTGAGAAC GGATGGCAGA	4620
CAGCCAGCAC TTCCAGCGGT TGGAGTGGCA CAGACCAAGC CCATTTTGGC ATTGTGTTCA	4680
TTGACTGCGA TGGCATTTTC GGCAGCCGAG AGAATCGTAT AATCTGACAG AGTTTTTCCG	4740
TTTTCGATGT AGTGATCCAA TTTGGCAGCA TCTCCACCTG TCAGGCCACT ACGAGATTTA	4800
TTTTCATTGA GGCCAAGTTG GACAGAGGCT TTCATAACTT CCAGATTGCG TTCCATGAGA	4860
AGGAAGACTT CTTACGTTT GCGACCGGTC AATTCAAACCT CTGTTGTAAT CATGAGTTCT	4920
GCGACATTTT CTTGAAAGTC CAGATCTGCT TGCTCGACCA ATTCTTTGAT AGAATAAAAC	4980
ATGCTTCCTC CTATTTAAAG AAATTGACAT TGTGGAGATG AGGGATTTTT CGAATTTCTT	5040
CGATAGCCTC ATCACAGTTG CGACTGTCAA CTTGATAAT CATAATGGCT TTTTCACCAG	5100

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CTTTTTCACG AGTGACATTC ATCTGGGCGA TATTGATACC ATAGCGGGAA AGCGCCTCTG	5160
TAACAAGGGC AATCATACCT GGAATATCTT GATGAACGAT GATGATAGTC GGTGTATTCA	5220
TATTGAGAGA GACGGCAAAA CCATTGAGTT CGGTTACCTG AATATTTCTT CCACCGATAG	5280
AAATACCAGT CACGCTGATG GTCTTGTGGG CATTTTAAAC AGTAATTTTA GTGGTGTAG	5340
GGTGAGGGGC ATTGCTGTCT TTCTGAATGG TCCAGACAAT CTTGATACCA CGCTTGTGGG	5400
CAATTTCCAG ACTATTTGGA ATTTTCAGGAT CATCTGTATC CATTCCTAAA ATACCTGCAA	5460
CAAGGGCTAG GTCTGTTCGG TGACCACGAT AGGTCTTGGC AAATGAGTTA AAAAGTTGGA	5520
ATTCAACTTC TGTCGGAGTA TCATCAAAAA TGAAGAGAC AATCTTCCCA ATACGAACAG	5580
CACCAGCGGT ATGGCTACTA GATGGGCCAA TCATAACTGG TCCGATGATA TCAAAGACAG	5640
ATTGAAAACG AAGTGATTTT ATCAGTTTCC CCTTATAAAA ATTCTTATCT CTATTATATC	5700
AAAGAATGAG GGGCTTGGCT TTAATGTGG ATGAAAACCT TTCTAATACC TCAAATAGCA	5760
TAAAAATAGT ATCTTTTATG ACAAAAAACA CCTTATTTAG GGAAATAAAA AATAATTTTG	5820
TAATATTTCT ACATAAAAGT GTCAAGAAAC GGTAATATTT AAAGGGTATG ATAGAAGTAT	5880
AGAAAGAAGG AGAATTTTCG AATATGAAAT CAATAACTAA AAAGATTAAA GCAACTCTTG	5940
CAGGAGTAGC TGCCTTGTTT GCAGTATTTG CTCCATCATT TGTATCTGCT CAAGAATCAT	6000
CAACTTACAC TGTTAAAGAA GGTGATACAC TTTGAGAAAT CGCTGAAACT CACAACACAA	6060
CAGTTGAAAA ATTGGCAGAA AACAACCACA TTGATAACAT TCATTTGATT TATGTTGATC	6120
AAGAGTTGGT TATCGATGGC CCTGTAGCGC CTGTTGCAAC ACCAGCGCCA GCTACTTATG	6180
CGGCACCAGC CGCTCAAGAT GAACTGTTT CAGCTCCAGT AGCAGAAACT CCAGTAGTAA	6240
GTGAAACAGT TGTTCAACT GTAAGCGGAT CTGAAGCAGA AGCCAAAGAA TGGATCGCTC	6300
AAAAAGAATC AGGTGGTAGT ATACAGCTAC AAATGGACGT TATATCGGAC GTTACCAATT	6360
AACAGATTCA TACCTGAACG GTGACTACTC AGCTGAAAAC CAAGAACGGG TACCG	6415

(2) INFORMATION FOR SEQ ID NO: 163:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 8494 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 163:

TACCCCTTTC GAATTTTGGC AAAAATTCGG TAAGGCTTTG ATGGTAGTTA TCCCGTTAT	60
GCCGGCTGCT GGTGATGA TTTCAATCGG TAAGTCTATC GTGATGATTA ACCCAACCTT	120

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TGCACCACTT GTCATCACAG GTGGAATTCT TGAGCAAATC GGTTCGGGGG TTATCGGTAA	180
CCTTCACATT TTGTTGCCC TAGCCATTGG AGGAAGCTGG GCTAAAGAAC GTGCTGGTGG	240
TGCTTTCGCC GCTGGTCTTG CCTTCATCTT GATTAACCGT ATCACTGGTA CAATCTTTGG	300
TGTATCAGGC GATATGTTGA AAAATCCAGA TGCTATGGTA ACTACTTTCT TTGGTGGTTC	360
AATCAAAGTT GCTGATTACT TTATCAGTGT TCTTGAAGCT CCAGCCTTGA ACATGGGGGT	420
ATTCTAGGG ATTATCTCAG GTTTTGTAGG GGCAACTGCT TACAACAAAT ACTACAACCT	480
CCGTAAACTT CCTGATGCAC TTTCATTCTT CAACGGGAAA CGTTTCGTAC CATTGTAGT	540
TATTCTTCGT TCAGCAATCG CTGCAATTCT ACTTGCTGCT TTCTGGCCAG TAGTTCAAAC	600
AGGTATCAAT AACTTCGGTA TCTGGATTGC CAACTCACAA GAAACTGCTC CAATTCTTGC	660
ACCATTCTTG TATGGTACTT TGGAACGTTT GCTCTTGCCA TTTGGTCTTC ACCACATGTT	720
GACTATCCCA ATGAACTACA CAGCTCTTGG TGGTACTTAT GACATTTTAA CTGGTGCAGC	780
TAAAGGTA CTCAAGATTCG GTCAAGACCC ACTATGGCTT GCATGGGTAA CAGACCTTGT	840
AAACCTTAAA GGTACTGATG CTAGTCAATA TCAACACTTG TTAGATACAG TACATCCAGC	900
TCGTTTCAAA GTTGACAAA TGATCGGTTT ATTCGGTATC TTGATGGGTG TGATTGTTGC	960
TATCTACCGT AATGTTGATG CTGACAAGAA ACATAAATAC AAAGGTATGA TGATTGCAAC	1020
AGCTCTTGCA ACATTCTTGA CAGGGGTTAC TGAACCAATC GAATACATGT TCATGTTTAT	1080
CGCAACACCT ATGTATCTTG TTTACTCACT TGTTCAAGGT GCTGCCTTCG CTATGGCTGA	1140
CGTCGTAAAC CTACGTATGC ACTCATTCCG TTCAATCGAG TTCTTGACTC GTACACCTAT	1200
TGCAATCAGT GCTGGTATTG GTATGGATAT CGTTAACTTC GTTTGGGTAA CTGTTCTCTT	1260
TGCTGTAATC ATGTACTTTA TCGCAAACCT CATGATTCAA AAATTCAACT ACGCAACTCC	1320
AGGGCGCAAC GGAACTACG AAAGTCTGA AGGTTGAGAA GAAACCAGCA GCGAAGTGAA	1380
AGTTGCAGCA GGCTCTCAAG CTGTAAACAT TATCAACCTT CTTGGTGGAC GTGTAAACAT	1440
CGTTGATGTT GATGCATGTA TGAATCGTCT TCGTGTAATC GTTAAAGATG CAGATAAAGT	1500
AGGAAATGCA GAGCAATGGA AAGCAGAAGG AGCTATGGGT CTTGTCATGA AAGGACAAGG	1560
GGTCAAGCT ATCTACGGTC CAAAAGCTGA CATTTTGAAA TCTGATATCC AAGATATCCT	1620
TGATTCAGGT GAAATCATTC CTGAACTCT TCCAAGCCAA ATGACTGAAG CACAACAAAA	1680
CACTGTTTCA TTCAAAGATC TTAAGTGAAG AGTTTACTCA GTAGCAGACG GTCAAGTTGT	1740
TGCTTTGGAA CAAGTAAAGG ATCCAGTATT TGCTCAAAAA ATGATGGGTG ATGGATTTGC	1800
AGTAGAACCT GCAATGGAAC ACATTGTATC TCCAGTTTCA GGTACTGTGT CAAGCATCTT	1860

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CCCAACAAAA	CATGCTTTTG	GTATTGTGAC	GGAAGCAGGT	CTTGAAGTAT	TGGTTCACAT	1920
TGGTTTGGAC	ACAGTAAGTC	TTGAAGGTAA	ACCATTTACA	GTTTCATGTTG	CTGAAGGACA	1980
AAAAGTTGCA	GCAGGAGATC	TCCTTGTCAC	AGCTGACTTG	GATGCTATCC	GTGCAGCAGG	2040
ACGTGAAACT	TCAACAGTAG	TTGTCTTCAC	AAATGGTGAT	GCAATTAAAT	CAGTTAAGTT	2100
AGAAAAACA	GGTTCTCTTG	CAGCTAAAC	AGCAGTTGCT	AAAGTAGAAT	TGTAATATAC	2160
TTGAGGTTGG	AAGCTGTATT	CCAACCTCTT	ATTTTGGGAG	AAAAGAATGA	AATTTTAAAC	2220
ACTCAATACT	CACAGTTGGA	TGGAGAAAGA	AGCAGAGGAA	AAATTCCAGA	TTTTCCTTGA	2280
AGATATTCTT	GAAAAGGACT	ATGATTTGAT	TTGTTTTCAA	GAAATCAATC	AGGAGATGAC	2340
CTCGTCAGAG	GTGGAGGTTA	ATGACCTTTA	TCAAGCTTTG	CCAGCAGCTG	AGCCTATTCA	2400
CCAAGACCAT	TATGTTAGAC	TCTTGGTTGA	AAAGTTGTCT	GAGCAAGGGA	AAAATTACTA	2460
CTGGACCTGG	GCCTATAACC	ATATCGGCTA	TAACCGCTAC	CACGAAGGTG	TGGCTATCTT	2520
GTCTAAAACA	CCTATTGAAG	CCAGAGAAAT	TTTGGTTTCA	GATGTGGATG	ATCCAACAGA	2580
CTATCATACT	CGCCGTGTTG	CCCTAGCTGA	AACTGTAGTC	GATGGCAAGG	AGCTAGCAGT	2640
TGCCAGTGTT	CATCTCTCTT	GGTGGGATAA	AGGTTTCCAA	GAAGAATGGG	CACGATTTGA	2700
GGCTGTCTTG	AAAAAATTGA	ACAAGCCACT	TTTACTAGCT	GGAGATTTCA	ACAATCCGGC	2760
TGGACAGGAA	GGTTACCAAG	CTATTTTAGC	TAGTCCATTA	GGCTTACAAG	ACGCATTTGA	2820
AGTTGCTCAA	GAGAAAAGTG	GTAGCTATAC	TGTTCCGCCT	GAAATTGATG	GCTGGAAAGG	2880
GAACACTGAA	CCCCTTCGAA	TCGATTATGT	CTTTACTACC	AAAGAGTTAG	CGGTGGAAAA	2940
TTTACATGTC	GTATTTGATG	GTAACAAGAG	TCCACAAGTG	AGTGATCACT	ATGGCTTGAA	3000
TGCTATATTA	AACTGGAAAT	AATAACTGAA	AAGAGGTTGG	AACTATAAAA	TTCCAGCCTT	3060
TTCTTACTAG	AGAAGCTACT	GGAAATAGCC	TAAATAAGTG	AGACTACTGT	AATGGAATAA	3120
AATATGGTAT	AATTGATAAG	GTAGATAGAA	TCGAGGATGT	TATGTCATTT	ACGAAATTTT	3180
AATTTAAAAA	CTATATTAGA	GAAGCCTTGA	AGGAGTTAAA	ATTTACAAC	CCAACAGAGG	3240
TGCAAGACAA	GTTGATTCCT	ATTGTTTTGG	CAGGTCGTGA	CCTAGTAGGA	GAATCAAAAA	3300
CAGGTTCAGG	TAAGACTCAT	ACTTTCTTGT	TACCGATTTT	CCAGCAATTA	GATGAAGCTA	3360
GCGATAGTGT	ACAAGCAGTG	ATTACTGCAC	CGAGTCGTGA	GTTGGCTACT	CAAATTTACC	3420
AAGTAGCGCG	TCAGATTTCA	GCTCACTCAG	ATGTCGAAGT	TCGTGTGGTT	AATTATGTGG	3480
GTGGTACGGA	TAAGGCTCGC	CAGATTGAGA	AATTGGCAAG	CAATCAGCCT	CATATTGTTA	3540
TTGGAACACC	AGGCCGTATC	TACGACTTGG	TTAAATCTGG	TGATTTAGCT	ATTCATAAAG	3600
CCAAGACATT	TGTTGTTGAT	GAAGCAGATA	TGACCTTGGA	TATGGGATTC	TTGGAAACTG	3660

1055

TTGATAAGAT TGCTGGCAGT CTTCCAAAAG ACTTGCAATT CATGGTCTTC TCAGCGACTA	3720
TCCCACAAAA ACTGCAACCA TTCTTGAAAA AATACTTATC AAATCCTGTT ATGGAGAAAA	3780
TTAAGACCAA AACGGTTATT TCTGACACCA TTGATAATTG GTTGATTTCG ACCAAGGGAC	3840
ATGATAAGAA TGCTCAAATT TACCAGTTGA CTCAGTTGAT GCAGCCGTAT TTGGCAATGA	3900
TTTTTGTTAA CACTAAAACG CGTGCTGATG AATTGCATTC ATATCTGACT GCTCAAGGCT	3960
TGAAGGTTGC AAAAATCCAT GGCGATATTG CCCCTCGTGA ACGCAAGCGA ATCATGAATC	4020
AGGTGCAAAA TCTGGATTTT GAGTATATTG TCGCAACAGA TTTGGCAGCG CGTGGGATTG	4080
ACATTGAAGG TGTCAGCCAT GTCATCAATG ATGCCATTCC GCAAGACTTA TCTTTTTTTG	4140
TTTCATCGTG TGGTCGTA CTGACGAAATG GCCTACCAGG TACAGCTATT ACCCTTTATC	4200
AGCCAAGTGA TGACTCGGAT ATCCGTGAGT TGGAGAAATT GGAATCAAG TTTAGTCCTA	4260
AGATGGTCAA AGACGGGGAA TTTCAAGATA CCTATGACCG TGATCGTCGT GCCAACCGTG	4320
AGAAAAACA AGATAAACTT GATATCGAAA TGATTGGTTT GGTAAAAAG AAAAAGAAAA	4380
AAGTCAAACC GGGTTATAAG AAGAAAATTC AATGGGCGGT TGATGAAAAG CGCCGTAAAA	4440
CCAAGCGTGC TGAAAATCGC GCTCGCGGTC GTGCAGAGCG TAAAGCTAAA CGCCAAACAT	4500
TTTAATAGAA ATTGTTGGAG TATTGAGCTC CAACTTTTTT ATTTATGAGA ACGAACTATC	4560
TAAACCGAAA CACTACATTA AAGACTGCAA ATTGCGATTA AAAATGGTAT AATGATAAAG	4620
TTATATAGTC CCCGATAAGAT GGTAGGTATT TATTACGAAG AGTTTTCCTA TCAGTACTTT	4680
GTAACCTCTAT AACAATATTT TTTAAGGGGG GACATTTTTA TGTCAGAGCG TAAATTATTC	4740
ACGTCTGAAT CTGTATCTGA GGGGCATCCG GATAAGATTG CAGACCAAAT TTCAGATGCG	4800
ATTTTGATG CTATTTTAGC AAAGGATCCA GAGGCGCACG TTGCTGCTGA AACAGCTGTA	4860
TATACTGGTT CTGTCCACGT TTTTGGTGAA ATTTCTACAA ATGCCTATGT GGATATTAAC	4920
CGTGTGGTTC GTGATACCAT TGCAGAGATT GGTATACCA ATACAGAATA TGGATTTTCT	4980
GCTGAGACGG TGGGAGTACA CCCATCTTTG GTGGAACAAT CTCCTGACAT CGCTCAAGGT	5040
GTAAACGAAG CCTTGGAGGT TCGTGGAAT GCTGATCAAG ATCCACTGGA CTTGATTGGA	5100
GCAGGTGACC AAGGGCTCAT GTTTGGATTT GCAGTAGATG AAACAGAAGA GCTTATGCCA	5160
TTGCCAATTG CACTCAGTCA TAAATTGGTT CGTCGTCTGG CAGAACTTCG TAAGTCTGGA	5220
GAAATTAGCT ATCTCCGTCC AGATGCAAAA TCACAAGTTA CAGTTGAGTA CGATGAAAAT	5280
GACCGTCCGG TACGTGTAGA TACAGTCGTT ATTTCTACTC AGCATGATCC AGAGGCCACT	5340
AATGAACAAA TCCATCAAGA TGTGATTGAC AAGGTCATCA AAGAAGTTAT TCCATCTTCT	5400

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TATCTTGATG	ATAAGACAAA	ATTCTTTATC	AATCCGACAG	GTCGTTTGT	AATCGGTGGT	5460
CCTCAAGGGG	ACTCAGGTTT	GACTGGTCGT	AAGATTATTG	TAGATACTTA	TGGTGGCTAC	5520
TCTCGTCATG	GTGGTGGTGC	CTTCTCTGGT	AAAGATGCCA	CTAAGGTGGA	TCGTTTCAGCC	5580
TCTTATGCGG	CTCGCTATAT	TGCCAAGAAT	ATCGTTGCAG	CAGACCTTGC	TAAGAAGGCA	5640
GAAGTGCAGT	TGGCCTATGC	TATCGGTGTT	GCGCAACCTG	TTTCTGTTTC	TATCGATACT	5700
TTCCGTACAG	GAACAGTAGC	TGAAAGTCAA	CTTGAAAAAG	CGGCTCGTCA	AATCTTTGAC	5760
CTTCGCCCTG	CAGGGATTAT	CCAAATGCTG	GACCTCAAGC	GTCCAATTTA	CCGTCAAACA	5820
TCGGCTTACG	GTCACATGGG	ACGTACAGAT	ATTGATCTTC	CATGGGAACG	TTTGATAAG	5880
GTAGATGCTT	TGAAAGAAGC	AGTAAAATAA	GATTTTAAGA	GGGGAACGTC	CTCTCTTTTT	5940
TATAGTTTTT	AACTATACTG	GGATACTGTT	CTGAAAATCC	ATTTTGCAG	AGTAGAGATT	6000
TACATGTATA	GTAGATTGAA	ACTAGAATAG	TACACCTCAA	CTTCTAAAAC	ATTGTTAGCA	6060
ATCAATTTGA	CTGTCCTGAT	CGATTTCTCC	TGTTCTTGTT	TCATTTTACT	ATATTTCTTT	6120
AAAAATGATA	AAGGTTAAGA	TTTCTCCTCG	TAATAGATAA	TCTTGGGGAT	ATTTCAATCC	6180
AAAGTTTTAT	TCGTTATCAC	TTGACTATTG	CAAGGTTTTC	TAGAGCAACA	GAGTCATGGA	6240
ATGGACTCAT	GGTTGAGATT	TCTCCTTGTT	GCTTGGACTT	CATTCAAAAG	TCTGTTACCC	6300
AAGCCTTGTT	CAAACTTCTA	ATACACTAGC	TGTTTCCATA	GCATGACTTC	TGTACTAGAC	6360
TTTCTTTTCC	GAATAAATAG	ATAGAACCAC	AGAATCTAGT	AAACCTAGAA	TTAAAATTAT	6420
GGTATAATAT	TAGCAATAAA	AGAAATCTGG	AGGATTAGAA	TCATGGTATC	AACGAAAACA	6480
CAAATTGCTG	GTTTTGAGTT	TGACAATTGC	TTGATGAATG	CAGCAGGTGT	GGCTTGATG	6540
ACGATAGAGG	AGTTAGAAGA	GGTCAAAAAC	TCAGCGGCAG	GAACCTTTGT	TACTAAGACA	6600
GCGACCTTGG	ACTTCCGTCA	GGGGAATCCT	GAGCCACGCT	ACCAAGATGT	TCCACTTGGT	6660
TCCATCAACT	CTATGGGCTT	GCCAAATAAT	GGCTTAGACT	ATTATTTGGA	TTATCTTTTA	6720
GATTTGCAGG	AAAAAGAGTC	GAACCGAACT	TTCTTCTTAT	CTCTGGTCGG	CATGTCTCCA	6780
GAGGAAACCC	ATACTATTTT	GAAAAAAGTC	CAAGAGAGTG	ATTTTCGTGG	TCTGACTGAG	6840
CTAAATCTTT	CCTGTCCAAA	TGTTCCAGGT	AAACCTCAGA	TTGCCTATGA	TTTTGAGACA	6900
ACAGACCGGA	TTTTGGCAGA	AGTGTGTTGCT	TACTTCACCA	AACCTCTTGG	AATTAAATTG	6960
CCACCTTATT	TTGATATTGT	TCACTTTGAC	CAAGCGGCAG	CTATTTTCAA	CAAATATCCG	7020
CTCAAGTTTG	TCAACTGCGT	TAACCTATC	GGAAACGGCC	TCTATATAGA	AGACGAATCT	7080
GTCGTTATTC	GGCCTAAGAA	TGGTTTTGGT	GGAATTGGTG	GAGAATACAT	CAAACCGACT	7140
GCTTTAGCCA	ATGTTACGCG	CTTTTATCAA	CGTTTAAATC	CTCAAATCCA	AATTATCGGA	7200